

THE NATIONAL PROVISIONER

The Organ of the Provision and Meat Industries of the United States.

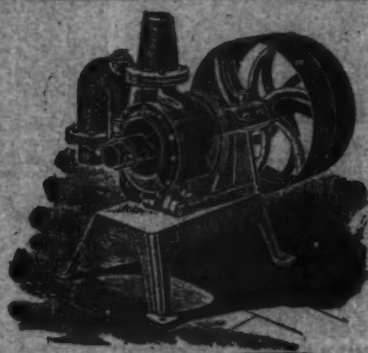
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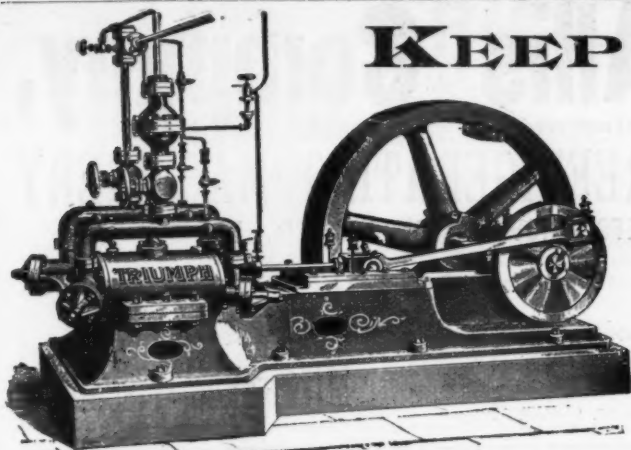
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SEE PAGE 7, INDEX TO ADVERTISEMENTS.



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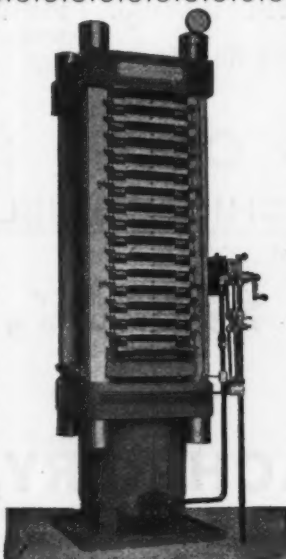
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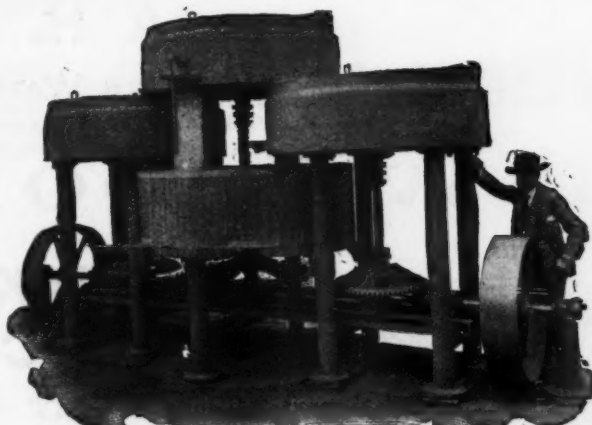
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The Most Perfect System
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U. S. A.

The Riverside Iron Works Co. KANSAS CITY, Kan.

MANUFACTURERS OF

ICE AND REFRIGERATING MACHINERY

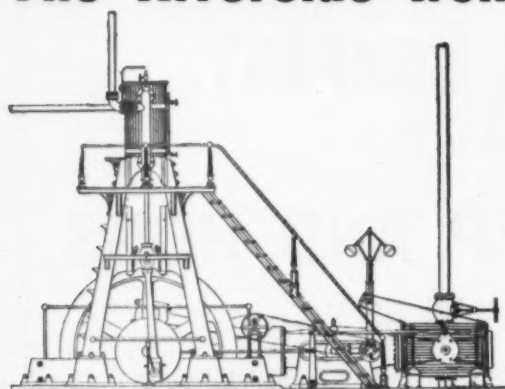
of any Size or Capacity, on the Compression Principle, also Manufacturers of SPECIAL AMMONIA FITTINGS which are superior to anything now on the market. MANUFACTURERS OF PACKING HOUSE MACHINERY OF ALL KINDS. The ROBERTS HOG SCRAPER, LARD ROLLERS IN ONE PIECE.

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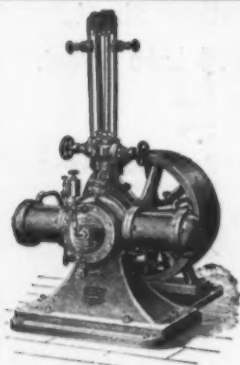
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St. Louis Ice and Cold Storage Co., St. Louis, Mo.	1	70-ton	Ref.
Kansas City Ice and Cold Storage Co., Kansas City	1	70-ton	"
Reid Bros. Packing Co., Kansas City, Kan.	1	70-ton	"
Omaha Brewing Association, Omaha, Nebraska	1	75-ton	"
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Kansas City Ice and Cold Storage Co., Kansas City, Mo.	1	250-ton	"
Ryan & Richardson, Leavenworth, Kan.	1	100-ton	"
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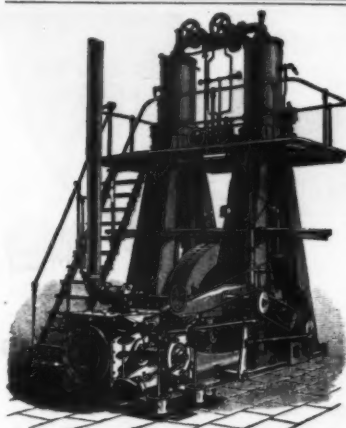
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High Speed Engines. Steam Boilers.

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Simplest. Best. Lowest Price.

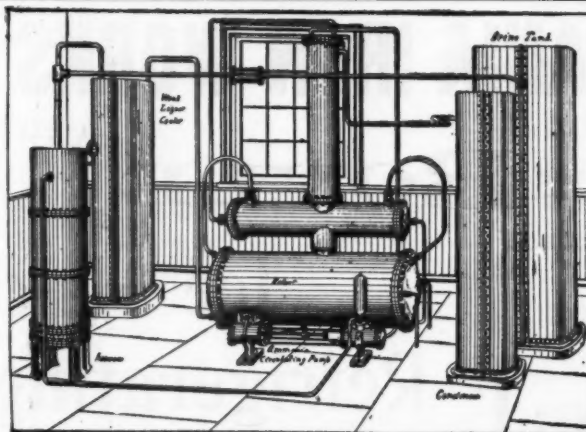
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OR
REFRIGERATING
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Uses Less Fuel, Than Any
Uses Less Water, Other System

BUILT BY
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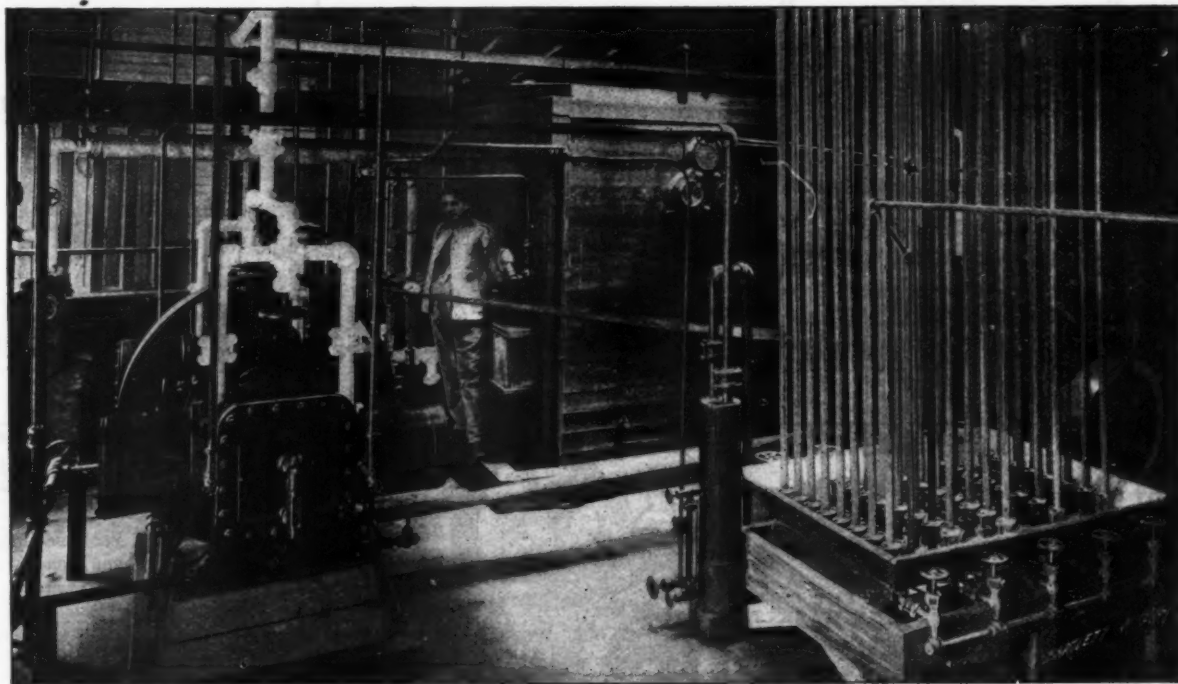
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ISAAC WHIFFEN'S SONS, Provisions,
Utica, N. Y.
COOKE BROS., Oil Works,
Elizabeth, N. J.
HOTEL MARGARET, Brooklyn, N. Y.



Last week this space contained a cut of the meat room of the Cook County Hospital, Chicago, Ill., and referred to the new refrigerating plant which had been installed. The above shows it fully. The compressor is belted from the small engine in the back ground and hides the brine pump which is near the brine tank. The Condenser is of the vertical evaporative type, economical of water and easily handled. Such a plant is efficient, durable and convenient.

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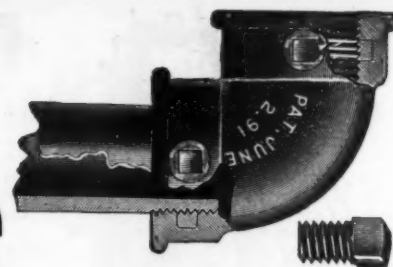
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"ECLIPSE"

Silent Meat Cutting Machines

Are conceded by the Trade, both in this
country and Europe, to be

THE BEST MACHINES EVER PUT ON
THE MARKET.

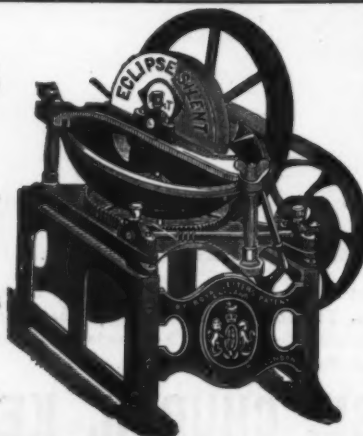
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The lay press during the past week has been busy taking everything big in the shape of petroleum, sugar, glucose, beer, cotton oil and spirits, and blending all into a forty million dollar trust. These great combinations are easiest formed in the fertile imagination of Yellow Journalism scribes.

A MONTANA COMBINE.

There is a mild form of warfare in progress among Montana butchers. The storm is centered in Butte City and involves a judicial construction on the anti-trust law. A suit has already been commenced. The facts are these: Some seven or eight concerns in Silver Bow County who either conduct slaughtering establishments or sell dressed beef by the wholesale, have formed themselves into an association called the Montana Retail Butchers' Protective Association. Why slaughterers or firms who sell by wholesale should form a retailers' association is not altogether obvious, unless they do both a wholesale and retail trade, and sell besides to other retailers who do not slaughter and who do not sell by wholesale. Anyhow this association, which is not chartered, has become a law unto itself, and has attempted to become likewise unto others. This accounts for the trouble under notice. The members of the association put their heads together and made up their minds apparently to take the meat trade of their immediate vicinity in the palms of their hands and do just as they pleased with it, making prices, regulating the volume of supply, etc. They tried the idea. It seemed to be unpopular at once, particularly with those in the trade who had not become members, and now the individuals constituting the association are being sued for \$10,000 for applying their "rules and regulations" to the business of a non-member. The complaint alleges that the defendants are severally corporations or copartnerships and that all of them have organized and become members of an association in Silver Bow County known as the Montana Retail Butchers' Protective Association, and that said association is not incorporated.

That the purpose and object of said association is to compel all persons, corporation or copartnerships engaged in the business of butchering in said county and State to become members of the association and to comply with its rules regarding the price at which meats are to be sold at wholesale and retail and have and does regulate such price, and any member of said association under its rules are subject to a fine on failure to comply with the rules so adopted.

That plaintiffs are not members of said association.

That retail dealers in meat in Butte City, said county and State, are forced to join said association in order to conduct their business profitably and purchase meat of the defendants herein.

That defendants notified plaintiffs to become members of said association in order to sell meats to retail dealers.

That one of the requirements of the association is that each member shall give a bond of \$200 to comply with the rules of the association.

That defendants as members of said association have entered into a conspiracy against plaintiffs and notified all retail dealers in Butte City not to buy any meats from any butchering concern not a member of said association. That the only butchering companies recognized by the association are the defendants named and that the plaintiffs had refused to join said association, and further notified them that any one buying meats from the plaintiffs would be subject to a fine.

That the action of the defendants through the said association binds themselves and others not to sell meats below a certain price, and that it precludes unrestricted competition in the sale of meats by these plaintiffs in this city and county.

That the action of defendants through said association and by said notice prevents the plaintiffs from selling to the retail meat dealers of Butte City, and by reason of such

action the retail dealers have refused and continue to refuse to purchase meats from these plaintiffs.

That said action of defendants through said association and notification is willful, malicious and for the purpose of preventing plaintiffs selling and disposing of their meats to retail dealers in the city, county and State, and also for the purpose of preventing plaintiffs from selling their meats at a less price than that established by the association.

That said action of the defendants through said association and notification is oppressive and detrimental and will continue to be oppressive and detrimental to plaintiffs and is a great loss and damage to plaintiffs in the sum of \$10,000.

Wherefore, plaintiffs demand judgment against said defendants in the sum of \$10,000 with the costs of this action.

We believe in organization, but not of this kind. Any fair minded judge must see that law and fair play are on the side of the plaintiff in this case. Such a combination as exists in Montana should be broken up by process of law. Its rules are tyrannical and unjust. They certainly are illegal.

THE CATTLE MARKET.

Everything indicates that the cattle market is in excellent shape just now and the belief is general that stock raisers are making money and will continue to do so for some time. A live stock contemporary, commenting on the situation says:

"Present prices ought certainly to be highly satisfactory to range men. Most of the Western cattle so far received have been on the stocker and feeder order and have sold at good strong prices. The man who feeds these Western grassers also has a mighty good thing in sight on account of the oceans of cheap corn and grass so that this summer and fall Omaha expects to double discount all previous records in the matter of handling the cattle from the great ranges of the West and Northwest."

As usual, English buyers are looking for the best that America has to offer, and in this connection it may be worthy of note that ripe, heavy beef cattle are no longer sought after as before for export to England. John Bull is demanding lighter material and buyers have received instructions to keep within the fourteen hundred pound limit. This fact has materially stimulated demand for stock running between 1,200 and 1,400 pounds. The Chicago Drovers' Journal points out that such cattle are selling as high as 1,500 pounds which in times of scarcity have sold seventy-five cents above them.

The outlook on the whole for a continuance of high prices for cattle is healthy and cheerful. The statistical position is strong, there being a marked shortage in some sections. With corn plenty and cheap we see no reason why farmers and feeders should not do very well for some time to come.

FARMERS AS PACKERS.

Mr. D. L. Howard, an Iowa swine breeder, is busy on a plan whereby he expects to get the farmers together in an organization, the objects of which are to both raise and pack hogs. Mr. Howard's scheme is heralded as original and is accompanied by the usual announcement about "cutting the ground from under the large Chicago packers," etc. All of which of course amounts to so much "poppycock." As a matter of fact the idea is not original. It has been tried and carried out successfully in Denmark, and much of the recently developed popularity of Danish pork products is due to the efforts of the farmers of that country to raise hogs or pigs suitable to market requirements. The Danish plan, however, while substantially the same as Mr. Howard's in the main, differs from it in the fact that whilst the farmers co-operated among themselves to get out a first-class article capable of holding its own in all markets, they took the essential step of also co-operating with the packers, or swine slaughterers, as they are called in Denmark. The Danish method of co-operation has already been fully explained in the columns of

"The National Provisioner," so that it is unnecessary to go over the ground again. The plan, if worked intelligently in the United States, and backed by sufficient capital should be remunerative. It would, if carried out and fostered properly, settle, in part, the vexed question of "building" hogs to meet specific market requirements. This has grown to be a very important matter in domestic pork packing, particularly in relation to that section of the industry which does an export as well as a home trade. The fact is this, and it cannot be made too plain to our farmers or be dilated upon too much by the agricultural and live stock papers, the American packing trade has a market for almost every kind of a hog and packers will pay the best prices for hogs from which they derive the most profits. Our readers will recall the days of the great fat corn-fed hog. This kind was popular at one time and good prices were paid for stock. But in time the consumers' taste changed and there was no longer the demand for heavy weights. It took a long time, however, to impress this fact upon farmers who really made no effort toward effecting a change until the packers refused to buy and gave the preference to light weights. The great thing to work on now is quality. Denmark stands out to-day as an example of the advantages of following certain lines in the feeding of hogs, and only a few weeks ago we pointed out how a certain brand of Southern cured ham had won its way to popularity simply through putting the hogs through a certain course of feeding. Europe is a great market, and, despite embargos and unjust regulations American products have a grand chance there. It must be remembered though, that meats which may have a ready sale in London, won't sell at all in France or Germany, and so on. Our farmer must "build" for all markets, and should disabuse his mind of the belief, which he apparently entertains, that meats which sell splendidly in the coal regions of Pennsylvania should be equally popular in Berlin, or in the mines of Lancashire. This is a great mistake which must, in the end, to a greater or lesser degree, tell against American meats in foreign markets. The whole difficulty cannot be solved by the packer. He may cut and trim and cord and do lots of other things, to half-way meet the requirements of certain markets, but he cannot change the taste. This is regulated by systematic feeding and that part of the business belongs to the farmer, who can materially help himself by understanding the kind of stock the packer needs.

The announcement is made that one of the large Chicago packing houses has decided to go into the butter business. The house referred to has been hitherto a large manufacturer of butterine, but was obliged to shut down owing to unjust legislation. The plant, however, is not to go to the junk shop, as was prognosticated by a rabid oleophist, but will be used in the production of cow butter. It is safe to say that the butter which the concern will produce will be second to none. The output will be large, so large, in fact, as to make some of the butter-making folks in Illinois regret very much that they stirred up a rumpus against butterine and induced the State legislature to pass prohibitive laws. There is such a thing in this world as "getting square." It is a poor idea in most cases, but in this case it is entirely justifiable. No legislation ever promulgated in the United States was more unjust and uncalled for than those laws which have destroyed the important industry of butterine making.

PROVISIONS AND LARD. WEEKLY REVIEW.

A DECLINING MARKET.

The improvement which is apparent in other lines has not been reflected in the market for provisions and lard. The corn crop is doubtful, inasmuch as present reports are of such a conflicting nature that it would be hazardous to base a prediction on same with regard to the future of lard. At this writing hogs are higher, on account of wheat cutting, but this latter farming operation will soon be terminated, when we may expect an influx of hogs to the packing centers. This condition practically exists at this writing in Kansas, where wheat cutting has been about brought to a close. In view of this fact, and seeing that consumers abroad evince no disposition to purchase since stocks of consigned lard are abnormally heavy, holders here see no inducement to bull the market. Prices are tending downward and the general conditions of the trade may be summarized in characterizing same as decidedly disappointing. Stocks are heavier than a year ago, while those for the month of July at this point have increased 6,000 tcs. over those of the preceding month. The estimated stocks of provisions Aug. 1 at Chicago are: Regular pork, 100,000; lard, new and old, 288,000 tcs.; ribs, 37,000,000 lb. Concerning lard stocks, it is interesting to note that on June 30, 1896, only 270,000 tcs. were reported in Chicago, thus showing 18,000 tcs. in excess of same at the same date this year. A leading member of the trade is authority for saying, however, that Sept. 1 will see less in Chicago than a year ago, thus showing that the demand for fat meats is keeping them out of the tanks, or, in other words, consumption is overtaking production.

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The market opened higher on Saturday and was well sustained through the short day, while it reached the highest point on Monday. Very little buying took place on the advance, but with the break on Tuesday and Wednesday a fair trade was done in spot stuffs. The refiners were in the market, while for export 2,000 tcs. were bought by Mr. Gledhill on private terms, partly local and partly Western stock, the latter being on through bill of lading. There seems to be a feeling among the packers to sell, but stocks being large at all points a discouraging effect is produced, and trade has correspondingly languished. In view of controlling crop influences, the fact should not be overlooked that lard values are not high. The prospect that corn will substantially advance looks decidedly hopeful from whatever standpoint viewed. Cereals are now shipping from this country to Brazil for the first time in ten years, while consignments are also loading for Peru and South Africa, without reference to the enormous trade which is expected to develop with Great Britain and the European Continent, primarily owing to the crop shortages elsewhere than in the United States. Prosperity to the farmers must surely come from the immense amount of grains that will sell abroad. Assuming this, the reflection in lard will undoubtedly correspond, as the farmers will not be disposed to release hogs unless on more favoring conditions than those which recently obtained. On the other hand, the accumulation of lard stocks would still prove a retarding influence, as packers cannot afford to pay higher prices

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(SEE PAGES 43 AND 45 ALSO.)

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PORK AND BEEF PRODUCTS

OF ALL KINDS.

OLEO OIL, CANNED GOODS, COTTONSEED OIL
 AND PRODUCTS, LARD, TALLOW, BUTTER, Etc.

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Beef Bladders

J. MOGENDORFF EN ZOON,
 GROENLOO, HOLLAND.

for hogs than the situation warrants. The position of corn will doubtless govern the price of lard, an advance in the former precipitating considerable speculative buying, developments now proceeding being of more than ordinary interest to the trade itself, as well as to the allied trades. Considerable interest was awakened in beef products, beef hams being in a stronger position, owing to the comparatively light offerings in the West. Meats have been fairly steady during the week, good buying for the home markets proceeding. Exports in the main were consigned from Chicago and other packing centers on through bills, in consequence of which it is difficult to estimate the sales.

Saturday's markets at the West opened firm, while the local market, under light supplies, was also decidedly strong. Receipts of hogs at Western points for the week closing on Saturday have been 322,000, against 344,000 for the previous week and 220,000 last year. Receipts at Chicago, 20,000, against 19,000 estimated; market quiet but steady; estimated Monday, 33,000; Omaha had 2,000 and Kansas City 5,000. Lard at the West was quiet but firmer, showing some improvement on the moderate receipts of hogs, although indications favored liberal receipts for next week. There seems to be some uneasiness of the short interest, and locally the spot market was held higher. Refined lard improved about 15c., compound also showing a gain of 1/4c., both city and Western. Pork at the West opened quiet, reacting a trifle over the 5c. advance recorded for the previous day. Hams developed a weaker feeling at 8 1/2c. for New York city green hams, while Chicago quoted 16-lb green hams 7 1/2c., 14-lb 7 1/4c., 12-lb 8c., 16-lb S. P. hams 7 1/4c., California S. P. hams nominal. Bellies were firmer than at the close of the previous day's business, 9-lb rib bellies being quoted 7c., 10-lb rib bellies 6 1/2c., 12-lb rib bellies 6c. bid, 14-lb 6c. loose, smoking bellies 7 1/2c. and clear bellies in pickle 6c. for Cuba, and salted do. 6 1/4c.

Monday's markets opened quiet and about steady on pork, while lard showed considerable strength, advancing with reports of a good demand for cash property in the West. Traders were in a speculative mood with regard to lard and ribs, but pork proved uninteresting. The local lard market was sustained by the favorable reports from the West with regard to futures, and we heard of sales at 4.40c. of 100 tcs., and of 100 tcs. of city at 4c. September lard was quoted 4.48c., but the advance did not influence the market for lard products to cause same to respond. Beef products continued firm, the offerings of hams being very light, with short stocks available. In Chicago provisions were firm on a small trade until near the end, when the slump in cereals made itself felt. The firm feeling early was due to receipts of 30,000 hogs and an advance of 5@10c. at the yards. September pork closed 2 1/2c. lower at \$7.72, sellers; lard, 5c. higher, at \$4.22@4.25; ribs, 5@7c. higher, at \$4.65@4.67. Cash quotations were as follows: Mess pork, per barrel, \$7.70@7.75; lard, per 100 lb, \$4.17 1/2@4.20; short rib sides (loose), \$5.25@5.37 1/2; dry salted shoulders (boxed), \$4.75@5; short clear sides (boxed), \$4.75@4.87 1/2. At the West pork was quieter and easier, notwithstanding strength in other meats, the market ruling for old mess, \$8@8.25; family, \$9.25@10; short clear, \$8.75@10.50; new mess, \$8.75@9.25. Meats were firm at this market with offerings moderate on most cuts, prices for the various articles being unchanged from the previous day's quotations. Hogs continued firm, with the offerings comparatively light; prices holding the figures of last week. Receipts at Chicago, 20,000,

against 33,000, estimated; market quiet; but steady; estimated to-morrow, 18,000; Omaha had 2,200 and Kansas City 4,839. The quotations were 5 1/4c. for hams, 5 1/2c. for 180-lb, 5 1/2c. for 160-lb, 5 1/2c. for 140-lb, 5 1/2c. for 120-lb and 5 1/2c. for pigs.

Tuesday's markets proved moderately active, firmness not being a prevailing feature, however, notwithstanding the bullish dispatches from Chicago. Cash Western lard was quiet, while the market for tanks was held firmly with fair sales, transactions amounting to 350 tcs. and sales of Western 150 tcs. September delivery was quoted 4.45c.; cash Western in tierces 4.40c. nominal, tanks 4.10@4.15c., city 4@4.05c. as to brand, for refining; do., iron-bound, 4.70@4.80c. Refined lard offered at slightly lower prices today for the Continent, 4.65c. being the quotation; South America, 5c.; Brazil, 6.20c.; compound, 4@4 1/4c. for city and 4 1/2c. for Western; neutral, 5c. West and 5c. New York; 20@31 florins, as to brand, in Rotterdam. Notwithstanding the strength in the corn market, as reported from the West, owing to the backward development of the crop, pork was decidedly dull and heavy. Sales of cash pork reported were 250 bbls., for export, the quotations being: Old mess, \$8@8.25; family, \$9.25@10; short clear, \$8.75@10.75; new mess, \$9@9.50. Bacon continued steady, while beef products ruled unchanged at former quotations, with a fair amount of business reported. Meats were strong and active under moderate offerings with regard to bellies. Heavy cuts were slow in response to the advance as quoted herewith, offerings being small: 9-lb rib bellies were quoted at 7 1/4c., 10-lb rib bellies 6 1/2c., 12-lb 6 1/4c., 14-lb 5 3/4c. loose, smoking bellies 7 1/2c., clear bellies in pickle 6c. for Cuba. Hams ruled practically unchanged, with a fair number of transactions reported. Hogs were strong and fairly active, with the supply offering locally moderate in proportion to the demand. Although the receipts West have increased a little this week, this does not influence the local trade. Receipts at Chicago, 15,000, against 18,000 estimated; market active and 5c. higher; estimated to-morrow, 26,000. The quotations for hams are 5 1/4@5 1/2c. for 180-lb, 5 1/2c. for 160-lb, 5 1/2c. for 140-lb, 5 1/2c. for 120-lb and 5 1/2c. for pigs.

Wednesday's markets were quiet and slightly easier in price all round. On the reported large movement of live hogs in the West there appeared to be a disposition to sell stuff West. The demand for cash property was slow and discouraging. Hogs were quiet but fairly steady, the effect of the continued liberal movement at the West apparently being felt locally. The receipts of hogs at interior points for two days have been 160,000, against 124,000 last week and 114,000 last year. Receipts at Chicago, 27,000, against 26,000 estimated; 5c. lower, while 27,000 was estimated for Thursday. Nothing of interest transpired with regard to bacon. Lard was dull and weaker with other products, with a pressure of cash supplies at this market, quotations being nominally 7 1/2c. lower, with a few important sales on the decline. Transactions reported were 250 tcs. of Western at 4.32 1/2c. and 250 tcs. city at 3.95@4c. Tank lard was dull and easier. September, 4.45c.; cash Western, in tierces, 4.32 1/2c. nominal; tank, 4.05c.; city, 4@4.05c. as to brand, for refining; do., iron-bound, 4.40c. The movement of hogs referred to had a depressing effect upon pork, a lack of active cash support being present. Locally there was a moderate business, 400 bbls. selling at quotations. Old mess was quoted at \$8@8.25; family, \$9.25@10; short clear, \$8.75@10.75; new mess, \$9@9.50.

Thursday's and Friday's markets were firm-

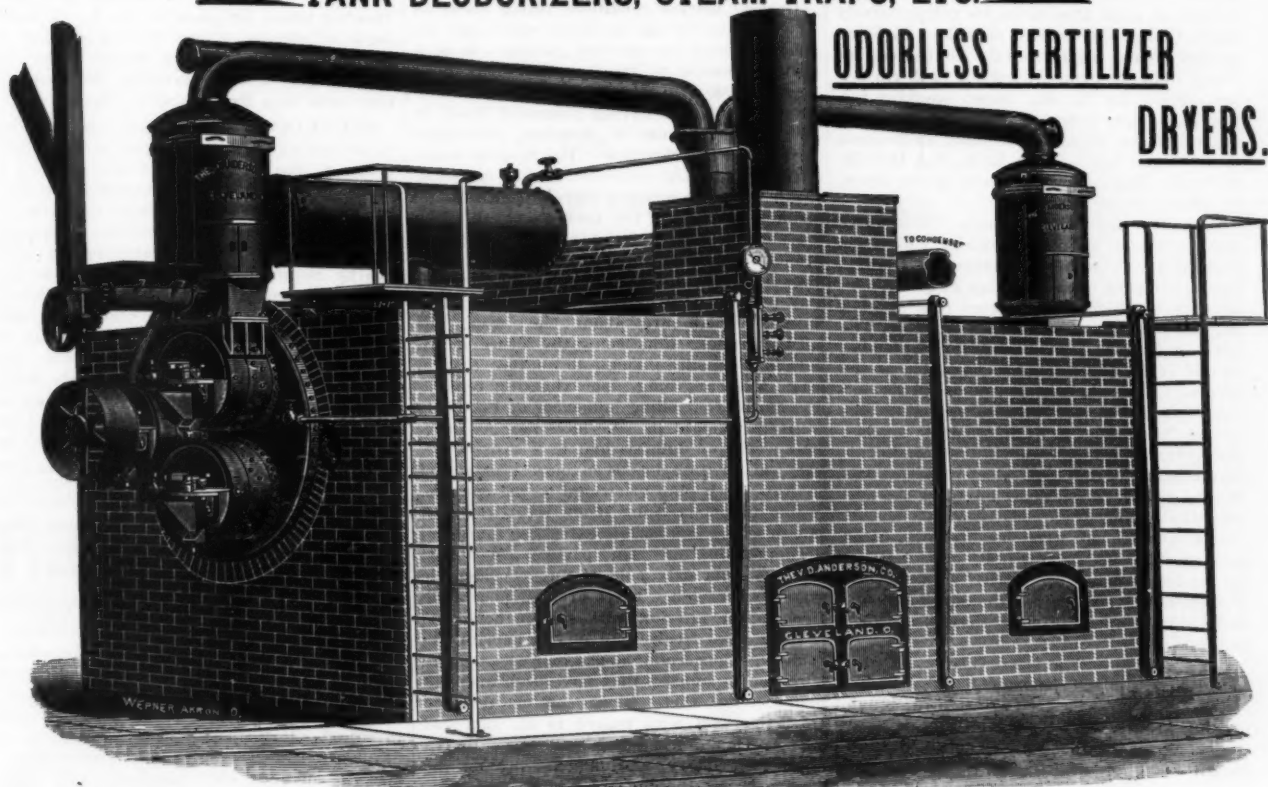
er than at the close on Wednesday, a slight advance obtaining at this writing, together with generally improved trading. The improvement referred to was doubtless influenced by the sharp advance in wheat and the strong position of the corn market. The latter happenings proved an incentive to speculators to buy, but there is yet room for considerable development on this line before what might be designated an active market obtains. Lard at the West is firm and fairly active trading is reported. The liberal receipts of hogs this week at Western points did not seem to have a depressing effect on the market. On Thursday sales of 100 tcs. city was reported at 4c., and Friday 250 tcs. at the same price. September lard is quoted 4.50c.; cash Western, in tierces, 4.40c. nominal; tanks, 4.12 1/2@4.15c., city, 3.80@4c., as to brand, for refining; do., iron-bound, 4.40c. Hogs are firm locally with fair demand. At Chicago the demand was strong and higher. Receipts of hogs on Thursday continued very liberal at the Western points, and in four days are 80,000 ahead of the corresponding time last year. Packing last week was 350,000, against 210,000 last year. Receipts at Chicago, 20,000, against 27,000 estimated; market strong and a shade higher. To-day, Friday, the estimated receipts at Chicago are 32,200. The quotations for hams are 5 1/4c., 5 1/2c. for 180-lb, 5 1/2c. for 160-lb, 5 1/2c. for 140-lb, 5 1/2c. for 120-lb and 5 1/2c. for pigs. Lard products are firm at the close to-day, Friday, but not active, a slight advance in Continental prevailing, while other grades are unchanged. The quotations close as follows: Refined, continent, 4.60c.; South America, 5c.; Brazil, 6.20c.; compound, 4@4 1/4c. for city and 4 1/2c. for Western; neutral, 5c. West and 5 1/2c. New York; 20@31 florins, as to brand, in Rotterdam. Concerning hog supplies, early marketing and liberal feeding of bounteous corn crops are shown in the experience of the past few weeks, as well as in the past six months. All Western points were liberally supplied during July, while for the first half of the year receipts were largely in excess of a year ago. The four leading markets, Chicago, Kansas City, Omaha and St. Louis, handled 7,500,000 hogs during the first six months of this year, an increase over the corresponding period in 1896 of nearly 800,000. The quality is good in the main, although late July has brought in some coarse heavy weights which are discriminated against. Hogs now going to such Eastern centers as Buffalo, Pittsburg and Boston are in good condition and find a fairly active market. Packers seem willing to pay present prices, and while the consumptive demand is scarcely up to the standard and prices fluctuate to a greater or less extent, the volume of business for domestic and foreign account, as compared with past records, compares favorably. During the twelve months ending June 30, our exports of bacon, hams and lard were all considerably in excess of the previous year. The total value of our exports of hog product made the enormous sum of nearly \$80,000,000.

Beef products were firm for hams, but beef itself is quiet at unchanged prices. The supply of hams is reported light at the West and prices were easily advanced, and a better demand obtains. Corned and roast are quoted at \$1.10 for 1-lb cans; 2-lb cans, \$1.90; 4s, \$3.95; 6s, \$6.25; 14-lb, \$13.75; mess, \$7.50@8; packet, \$7.50@8; family, \$8.50@9.50; extra India mess, in tierces, \$12@14 for both extremes; hams West, \$26; cost and freight, new, here, nominal at \$26.50@27; job lots, \$25.50@26.50; tongues, \$24.50 for large 6-lb average and \$23.50@24 for small.

Pork at the West was firm but not active, advancing 7 1/2c. to 10c. with but little for sale at the advance; locally trade was quiet, with

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 LOOK FOR THE RED SEAL ON EVERY PACKAGE.

sales of 300 bbls. at quotations. We quote: Old mess, \$8@8.50; family, \$9.25@10; short clear, \$8.75@10.75; new mess, \$9@9.50.

Meats continue firm, but not particularly active; the movement is moderate, with offerings of some cuts of meats comparatively light. Quote: City pickled shoulders, 5@5½¢; pickled hams, 8½@9¢; 9-lb rib bellies, 7@7½¢; 10-lb rib bellies, 6½@7¢; 12-lb rib bellies, 6¼¢; 14 lb, 6¢, loose; smoking bellies, 7½¢; clear bellies in pickle, 6¢ for Cuba; dry salted do., 6¼¢. In Chicago: 16-lb green hams, 7½¢; 14-lb, 7¼¢; 12-lb, 8¢; 16-lb S. P. hams, 7¼¢; New York city green hams, 8½@8¾¢; green bellies, 6¢.

From the Union Stock Yards, Chicago, we are in receipt of the following: Provisions firm on a very moderate amount of trading. September pork opened Friday at \$7.72½, an advance of 2½@5¢, and later rose another 5¢., and near the close added 2½¢ more. The day's gain was 12¢. Lard for September started at 5¢ advance, \$4.20 being bid at the opening. Near the end it rose to \$4.25, and that was the closing price. September ribs opened 2½¢ higher at \$4.62½ bid. It touched \$4.60@4.62½ a few moments later, and after that rose to \$4.65. The closing price was \$4.67½, the last 2½¢ being added as the session was coming to an end.

Cash quotations were as follows: Mess pork, per barrel, \$7.50@7.85; lard, per 100 lb, \$4.20@4.22½; short rib sides (loose), \$5.25@5.37½; dry salted shoulders (boxed), \$4.75@5; short clear sides (boxed), \$4.75@4.87½.

Hogs strong and a shade higher. Light, \$3.60@3.85; mixed packers, \$3.57½@3.75; heavy shipping grades, \$3.37½@3.75; rough packing grades, \$3.37½@3.45. Hogs closed strong; packers bought 19,600, shippers bought 7,000, left over 2,000.

HUNGARIAN HOG CHOLERA CURE.

We are glad to note that the agricultural and lay press of the country generally is taking up the subject of the Hungarian remedy for hog cholera outlined in this paper by Mr. Ganz several weeks ago. The Chicago Drivers' Journal reprints the article from "The National Provisioner" in its entirety, and The Farmers' Voice, another Chicago paper, in commenting on the subject, says:

"We may be sure that a man of Mr. Ganz's standing would not urge the Secretary as he has done to encourage this demonstration unless he has seen enough to justify his faith in the remedial power of the Hungarian invention. This being true, we have no doubt that Secretary Wilson will encourage in every possible way the proffered visit of the discoverers.

"The ravages from hog cholera is one of the contributing causes to the straitened circumstances in which many Western farmers have found themselves during recent years. It has carried off millions of dollars' worth of live stock in Iowa, Illinois, Indiana, Missouri and other States, and the losses thus sustained have had a depressing influence upon every branch of agricultural industry and upon general commerce as well. Nothing should be left undone to destroy this enemy of the farmer, root and branch, and we are confident that if the Hungarian cure is what its friends claim for it, it will soon be largely in use in this country."

The weekly reports in "The National Provisioner" on Provisions and Lard, Tallow and Stearine, Cottonseed Oil, Hides and Skins, etc., are trustworthy, impartial and up-to-date. That is one of the reasons why you need it. Subscription price \$4 per year.

TALLOW AND STEARINE.

WEEKLY REVIEW.

Current market conditions ruling about as at the close of the previous week and already covered by our last review. It is a difficult matter to treat satisfactorily with regard to a written survey of the situation, no novel feature having presented itself in the interim. There is, therefore, practically nothing new to chronicle. The demand is uncertain and light domestic trading prevails. With regard to exports, there is a little more doing than during the previous week. The advance in ocean freights has stimulated trade inasmuch as shippers prefer doing business now when having the option rather than pay possibly still higher ocean freight rates later. Prices are about the same for all the grades. Concerning the future of tallow it is equally difficult to venture a forecast with anything approximating reliability, as the controlling influences of the trade scarcely warrant it. We have now had several weeks of dullness and it is safe to say that this feature has been more pronounced in New York than elsewhere in the country. While tallow is being made right along, it is also selling to a certain extent, so that local accumulations are not particularly heavy, one city firm only holding any considerable quantity of stock. There are fair accumulations in the interior, with soap-makers purchasing more freely than in this part of the country. Concerning stocks in Europe, there is reason to suppose they have been overestimated. Yet there is no comfort deriving from this fact with regard to an improved export demand when it is recognized that a number of heavy consignments are on the way to Great Britain and France from producing countries. The direct effect of this will be to render the English and Continental markets independent of American tallow for some time to come. Furthermore, it should be recognized that supplies abroad at this time, while probably not excessive, are sufficiently large and continuous as to check any decided rise in quotations. These conditions cannot be looked upon as being favorable, in the face of which speculation is practically dead, whether here or in London. The wet weather which obtains has also been unfavorable to soap making operations inasmuch as the despatch of manufacturing operations is checked as a consequence, thus to a corresponding extent limiting tallow consumption.

The only promising feature which presents itself with a reasonable degree of assurance, concerning greater activity in the domestic demand, consists in the re-opening of the textile mills. As tariff matters are about finally disposed of, a large number of these mills will soon be put in operation, when we may expect considerable improvement in the way of new orders for tallow. The French markets continue to disappoint expectations notwithstanding the report that light stocks obtain in that country, thus confirming the statement that supplies are being secured elsewhere. The quotations are:

City tallow, 3½¢ asked in hogsheads and 3½¢ in tierces; country (packages free), 3½¢ @ 3½¢ for common to fancy; edible, 3½¢ @ 3½¢ for country and city. Chicago prices:

Prime packers', 3 9-16¢; edible, 3½¢; country 3½¢; No. 2, 2½¢.

We do not hear of a single important transaction at this market. In the West, however, a better movement obtains at a little steadier prices for packers' No. 1. A drawback to current export trading consists in the leakage which always obtains during the hot weather, however carefully the packages may have been fixed up when sent out.

STEARINES.—The market for stearines is advancing, although there is very little doing at the moment and the demand is light. With regard to oleo stearine, the present nominal price 4½¢ is above the views of exporters, who are not, therefore, interested. Local refiners, owing to anticipating their nearby requirements by purchasing in the West last week are not desirous of purchasing local stock, except at a concession—this, holders decline to do. There are offers to sell from the West at 4.72½¢, cost and freight New York, and round lots are being ordered. Local makers are now willing to sell at 4½¢, but do not find buyers above 4½¢, at which but moderate lots would be taken. Local stocks are not excessive. The compound lard trade has shown a little interest, but not to an extent which was expected earlier in the week. Western has been offered at 4½¢ with small sales. The decline in lard has been instrumental in checking business in oleo stearine, whether with regard to the home or export demand, while the decline in oleo oils at Rotterdam from 41½ to 40 florins has given prospective stearine trading a further setback. Reports from St. Louis and Kansas City indicate quietness, but with the pronounced strength in cotton oil which the past few days have developed it needs but a slight reaction in lard to advance oleo stearine. City lard stearine is quoted at 5½¢ and Western 5½¢ @ 5½¢. Lard refiners report very little new business doing.

GREASES show a little more activity, although quotations are slightly easier than those recently ruling. Yellow was quoted 3½¢ and white 3½¢ nominal.

OLEO OIL.—Melters are asking higher prices than the Rotterdam equivalent, which has the effect of restricting trading. Nevertheless, we have heard more than one important member of the trade predicting higher prices, the undoubted shortage of stocks on the other side lending favor to the assumption. The bullish sentiment referred to is, however, far from being accepted by the general trade as being warranted by existing conditions. Late on Wednesday evening a cable arrived announcing a drop in prices to 40 florins, or one florin reduction. Shipments are light, the outlook indicating no immediate improvement. Elsewhere will be found sales list. The quotations being 7¢ for choice stearine, nominal; oleo oil, 7¢ for choice, 6¼¢ for prime, 5@5½¢ for No. 2, and 3½@4¢ for low grades; at Rotterdam, 30@41 florins; oleo stearine at Chicago, 4½¢ asked.

ANIMAL OILS.—The market, while holding steady, is moving on conservative lines, neither the home nor export trade evincing a semblance of activity. Prices are without important change throughout the list.

(For Later Report see Page 18.)

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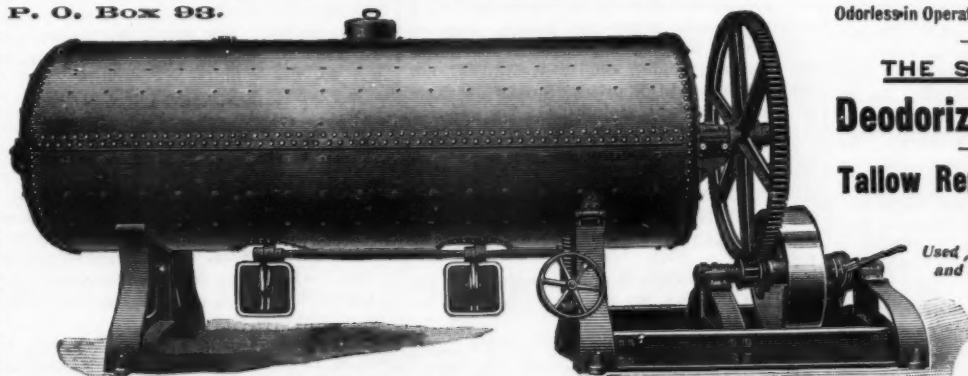
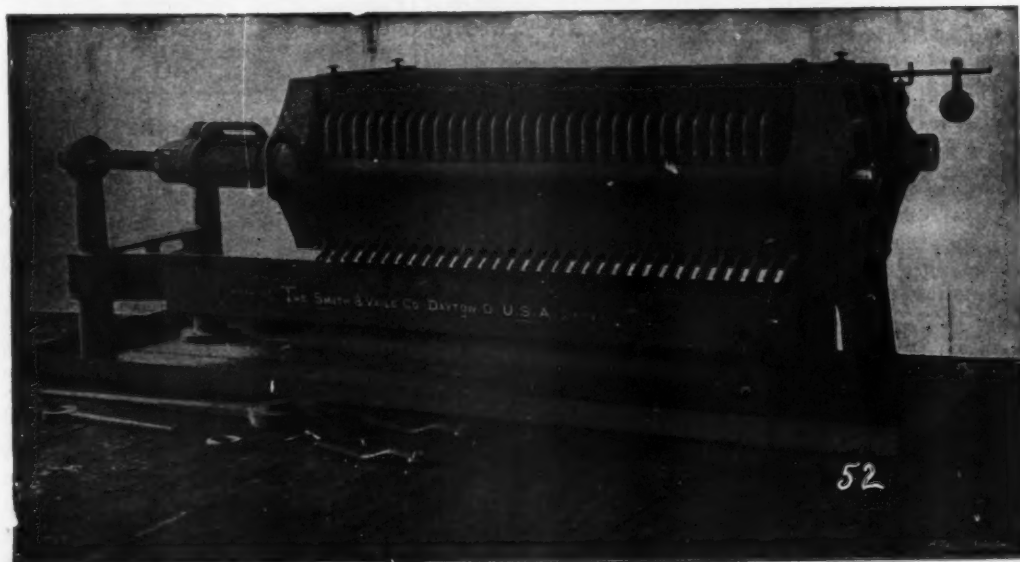
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HIDE AND SKIN MARKETS.

CHICAGO.

PACKER HIDES.—Considerable activity has reigned in hide circles during the past week. A comparatively large amount of stock was moved, although sales were by no means free from concession, and it is generally allowed that should prices again ascend to their late altitude the effect on traffic would be marked. The larger buyers, many of whom, by the way, acquired a complement of stock at large prices, are temporarily out of the market, probably in the hope that depreciated values will give them a chance to hedge. Packers' holdings are not heavy and accumulations consist mainly of old natives. Quotations, as will be noted, have again gone off slightly.

No. 1 NATIVES, 60 lb and up, have sold freely, late hides commanding 10@10½c.

No. 1 BUTT-BRANDED, 60 lb and up, have been in active request at 9½c., with some being held at 9½c.

COLORADO STEERS have had some call at 8½c., about 5,000 having sold at that price.

No. 1 TEXAS have been in active request, good sales having been made both on a basis of 10c. and 10½c.

No. 1 NATIVE COWS, 55 lb and up, free of brands, are now offering at 9½@9¾c.

BRANDED COWS have sold fairly well at 9c., which is a neutral price.

NATIVE BULLS are light in supply and demand and remain steady at 8@8½c.

COUNTRY HIDES.—Trading is rather quiet, although prices are more firmly maintained than in the packer market. Buyers and holders regard the present as a critical period, and both are waiting for what may prove favorable conditions for either. As the appended quotations will show, there is but little variation from last week's figures. We quote:

No. 1 BUFFS, 40 to 60 lb, free of grubs and brands, have sold at 8½@9c.; No. 2, 8c.

No. 1 EXTREMES, 25 to 40 lb, have had some call at current quotations, 9½@9¾c.

BRANDED STEERS AND COWS are quotable at 8c. flat.

HEAVY COWS, 60 lb and up, free of brands, have not sold very freely, and are quotable at 8½@8¾c.; No. 2, 7½@7¾c.

NATIVE BULLS are having little call and range in price from 8½@7½c.

CALFSKINS continue to offer at 11½c. for No. 1 and 10c. for No. 2.

KIPS, 15 to 25 lb, are in active demand at 10½c. for No. 1 and 9c. for No. 2.

DEACONS under 7 lb are in good demand at 47½c.

SLUNKS, 25c.

HORSE HIDES are selling readily at \$2.85@3.

SHEEPSKINS.—The market is decidedly stronger and some varieties are closely sold up. We quote:

PACKER PELTS, 75c.@\$1.25.

COUNTRY PELTS, 70c.@\$1.05.

PACKER SHEARLINGS, 35@37½c.

COUNTRY SHEARLINGS, 15@22½c.

KANSAS CITY.

The present hide market is rather featureless. Some stock, including branded and natives, have been moved, but traffic is anything but brisk. While the demand is indifferent, stock is too scarce to render the packers uneasy about their holdings; and, on the other hand, high priced hides are too questionable an investment, in the face of existing conditions, to offer any incentive to tanners to purchase, consequently trade is at a virtual standstill. The appended quotations denote the present strength of the market:

No. 1 NATIVE STEERS, 10½@10¾c.; price nominal.

BUTT-BRANDED STEERS are offering at 9½c., and are closely sold up.

COLORADOS, 60 lb and up, are available in small quantities, and some have sold at 8½c., although much stock is being held for 9c.

TEXAS are held at 10½c., and unless the complexion of things change, will probably continue to be held. Native cows, free of brands, are in meager supply and quotable at 9½c. Under 55 lb, 10½c. Branded stock and bulls have no especial call, although sales of branded cows are reported at 9@9¼. Bulls are offering at 8@8½c. A radical concession on the part of either the tanner or the packer would probably result in greatly increased activity, as it is thought that many buyers would purchase now at prices consistent with their views, in preference to deferring the purchase until later in the season.

BOSTON.

This market continues firm, although holders evince rather more desire to sell than for some time past. They are not, however, making any appreciable overtures, probably because of the adverse effect that such an attitude must exert over prices. We quote:

BUFF HIDES, 9½c.

NEW ENGLAND HIDES, 9c.

CALFSKINS are scarce and prices high.

SHEEPSKINS.—The market is firm and a somewhat increased demand noted.

PHILADELPHIA.

The price of hides still looms up here as a barrier between buyer and holder. Tanners will buy "if properly approached," and packers will sell under similar conditions, but progress is barred by prices. Stocks are closely sold up and well maintained. We quote:

CITY STEERS, 9@9½c.

CITY COWS, 8½@9c.

COUNTRY STEERS, 8@8½c.

COUNTRY COWS, 8@8½c.

BULLS, 7@7½c.

CALFSKINS are closely sold up and prices very firm.

SHEEPSKINS sold up to receipts.

WOOL SKINS, \$1.

SHEARLINGS, 25@30c.

LAMBSKINS, 35@40c.

NEW YORK.

GREEN SALTED HIDES.—Business is slow. Some natives have been disposed of at ruling quotations, but little other stock has been moved. Prices are well maintained. We quote:

No. 1 NATIVE STEERS, 60 lb and up, have sold at 10½@10¾c.

BUTT-BRANDED STEERS are in light request, but remain firm at 9½@9¾c.

SIDE-BRANDED STEERS have had little call and have gone to 8½@8¾c.

CITY COWS, 9c.

NATIVE BULLS, 8c.

COUNTRY COWS, 8½@8¾c.

CALFSKINS.—For detailed report see page 46.

HORSE HIDES, \$2.50@2.75.

SUMMARY.

The past week has brought additional ease to the hide markets of the country. In many cases hides can be bought for less money than it was possible to buy them for last week, and concessions of various kinds have been numerous. On the other hand, it is quite true that there are numerous holders all over the country who still adhere to top-notch prices, and who are at present disposed to concede nothing. The recently imposed duty of 15 per cent. on foreign hides has as yet failed to

exert any influence on prices. The receipts of imported hides and calfskins have been particularly heavy for several months past in anticipation of the passage of the tariff bill, and there is at present a large accumulation of the foreign article. If Collector Warren of the port of Boston is sustained in his late ruling that "calfskins are not hides," and consequently are not subject to the imposed duty, the recently acquired stock of imported calfskins may be found not to be uncomfortably large.

CHICAGO PACKER HIDES—

No. 1 natives, 60 lb and up, 10½c.; No. 1 butt-branded, 60 lb and up, 9½@9¾c.; Colorado steers, 8½c.; No. 1 Texas, 10@10½c.; native cows, 55 lb and up, free of brands, 9½@9¾c.; under 55 lb, 10@10½c.; branded cows, 9½c.; native bulls, 8@8½c.

CHICAGO COUNTRY COWS—

No. 1 buffs, 40 to 60 lb, free of brands, 9c.; No. 2, 8½c.; No. 1 extremes, 25 to 40 lb, 9½@9¾c.; branded steers and cows, 8½c. flat; heavy cows, 8½@8¾c.; No. 2, 7½@8c.; native bulls, 7½c.; calfskins, 11½c.; No. 2, 10c.; kips, 10½c. for No. 1, 9c. for No. 2; deacons, 47½c.; slunks, 25c.; horse hides, \$2.85@3; sheepskins, packer pelts, 75c.@\$1.25; country pelts, 70c.@\$1.05; packer shearlings, 35@37½c.; country shearlings, 15@22½c.

BOSTON—

Buff hides, 9½c.; New England hides, 9c. flat.

PHILADELPHIA—

Country steers, 8@8½c.; country cows, 8½@9c.; country bulls, 7½@8c.

NEW YORK—

No. 1 natives, 60 lb and up, 10½@10¾c.; butt-branded steers, 9½@9¾c.; side-branded steers, 8½@9c.; city cows, 9c.; native bulls, 8c.; country cows, 8½@8¾c.; calfskins, see page 46. horse hides, \$2.50@2.75.

HIDELETS.

Thos. Garnar, an old-time tanner, but recently operating a sheepskin business in Spruce street, New York City, died last week.

N. L. McKay, the Boston representative of Albert Trostle Sons, the Milwaukee tanners, recently visited the New York market.

Chas. Z. Bockins, of Philadelphia, is building an addition to his tannery.

The hide trade of Chicago generally observed Thursday of last week as a holiday, out of respect to the late General Logan.

A dividend of 4 per cent. has recently been declared on the stock of the Illinois Leather Company.

W. P. Witzel, the Newark, N. J., patent leather tanner, visited the Boston market last week.

FOR AN AGRICULTURAL STATION.

Washington, July 24.—Secretary of Agriculture Wilson believes that Congress at its next session will authorize the establishment of an agricultural experimental station in Alaska.

He said to-day that he had no doubt the people in some parts of Alaska would be able to produce their own vegetables and to some extent the cereals they will need. The hardy classes of animals, he said, also could be grown there. The cattle from the mountains of Scotland, he believed, could be raised successfully in Alaska, but so far as is known now the mining regions in the vicinity of the head waters of the Yukon River are about 1,000 miles away from any part of Alaska in which agriculture could be successfully pursued.

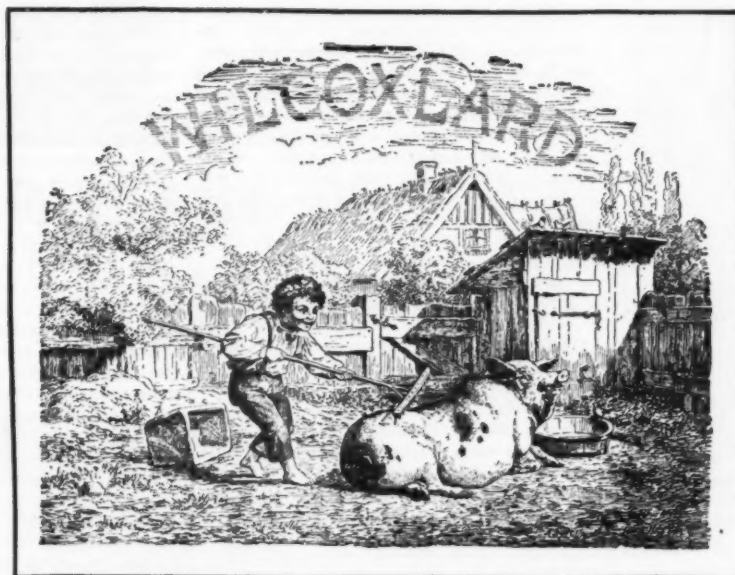
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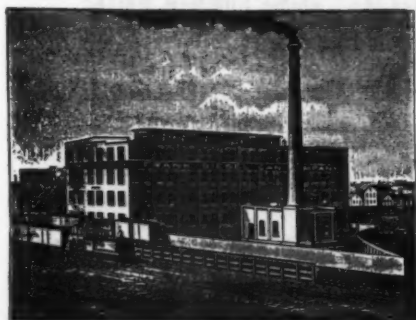
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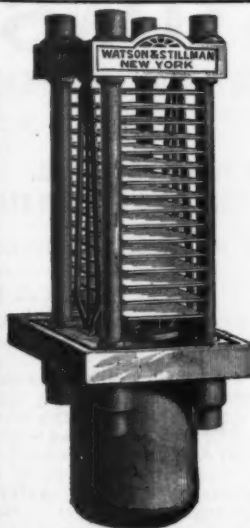


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OUR YELLOW BOOK

SEE COUPON PAGE 22.

TALLOW AND STEARINE.

Yesterday's Markets.

(Continued from page 14.)

The market is steady to firm with nothing noteworthy to chronicle since date of our review elsewhere in this issue. There has been considerable inquiry for export, although but little business was reported effected. There were sales quoted of 175 tcs. at $3\frac{1}{2}\text{c}$., the regular weekly sales. Other business was of moderate proportions. City tallow is quoted $3\frac{1}{2}\text{c}$., asked in hogheads and $3\frac{1}{2}\text{c}$., in tierces; country (packages free), $3\frac{1}{2}\text{c}$./ $3\frac{1}{2}\text{c}$., for common to fancy; edible, $3\frac{1}{2}\text{c}$./ $3\frac{1}{2}\text{c}$., for country and city. Chicago prices: Prime packers, 3 9-16c.; edible, $3\frac{1}{2}\text{c}$.; country, $3\frac{1}{2}\text{c}$.; No. 2, $2\frac{1}{2}\text{c}$.

STEARINES AND OLEO OIL.—The market is quiet but nominally steady for lard stearine. City oleo is moving slowly and for some grades the market is weaker. Oleo oil was weaker, with Rotterdam quoted down to 40 florins for the outside brands and inside quotations ranged down to 30. We quote: City lard stearine, $5\frac{1}{4}\text{c}$., asked; Western lard stearine, about $5\frac{1}{4}\text{c}$./ $5\frac{1}{4}\text{c}$., nominal to arrive New York; oleo stearine, city, $4\frac{1}{2}\text{c}$., asked to $4\frac{1}{2}\text{c}$., bid; yellow grease stearine, $3\frac{1}{2}\text{c}$.; white do., $3\frac{1}{4}\text{c}$./ $3\frac{1}{4}\text{c}$., 5-16c.; tallow stearine, nominal; oleo oil, 7c. for choice, $6\frac{1}{4}\text{c}$., for prime, $5\frac{1}{2}\text{c}$./ $5\frac{1}{2}\text{c}$., for No. 2 and $3\frac{1}{2}\text{c}$./ 4c ., for low grades; at Rotterdam, 30@40 florins; oleo stearine at Chicago, $4\frac{1}{2}\text{c}$., asked; yellow grease stearine, $3\frac{1}{2}\text{c}$.; white do., $3\frac{1}{2}\text{c}$., nominal.

GREASE is firm, with a good business reported at the West, although locally the amount of trade at the moment is not heavy. Quote: Brown, $2\frac{1}{2}\text{c}$./ $2\frac{1}{2}\text{c}$.; yellow, $2\frac{1}{2}\text{c}$./ $2\frac{1}{2}\text{c}$.; white, $2\frac{1}{2}\text{c}$./ 3c .; bone and soap, $2\frac{1}{2}\text{c}$./ $2\frac{1}{2}\text{c}$.. At Chicago: 3c., asked for A white, $2\frac{1}{2}\text{c}$., for B white, $2\frac{1}{4}\text{c}$., for yellow, 2c. for brown and $2\frac{1}{2}\text{c}$., for bone.

ANIMAL OILS.—A moderate jobbing demand obtains, but the sales were at the top prices, although the orders called for small lots. Sellers are meeting the demand readily, but there is no selling pressure at any point. We quote:

ANIMAL OILS—WHOLESALE AND JOBBER.

	Per Gall.
Lard oil, prime, city, present make.....	36 a 37
" " Western.....	" a "
Neatsfoot oil, white.....	60 a 70
" " prime.....	47 a 53
" " No. 1.....	45 a 48
" " No. 2.....	41 a 43
Red saponified.....	34 a 35
Red Elaine.....	28 a 32
Tallow oil, prime.....	35 a 36
Degras, German.....	15 a 17
" " English, brown.....	15 a 2
" " light.....	23 a 24
" " French.....	44 a 54

CHICAGO LIVE STOCK REVIEW.

(Written for THE NATIONAL PROVISIONER by Mallory Son & Zimmerman Co.)

HOGS.—The decline in the market the latter part of last week caused the usual reduction in receipts at all markets and the customary reaction of 10@20c. in price. The light hog market which did not decline as much as the other grades did not share in the full extent of the advance, but the relative range in prices between the different grades remain unchanged. There was a slight response in the provision market to the advance above noted, but a small reduction in the cash demand caused a weaker feeling later in the week, and with some increase in the receipts of hogs, prices reacted again, and heavy hogs at the close are selling about the same as they did a week ago. Light and medium weight hogs are still commanding a good premium. We have no doubt of a con-

tinuation of the good demand for hog product at anything like present prices, as the quality was never better, and even at higher prices, would be considered cheaper than most any other article of meat food. The quality of the hogs continues good for this season of the year, but shows a further reduction from some sections of the country. As many sections are now busily engaged in the harvest field we do not look for very much increase in receipts for a week or so, but we do not believe it good policy to discount the future unless the provision market advances, and the advance is maintained. We would not be surprised to see some further advance in the hog market during the next sixty days, but present prices are remunerative to the producer, and any material advance would be liable to check the cash demand for the product, temporarily at least. We are getting more of the brood sows, and a fair number of grass hogs, which always sell at a discount, and we caution our readers to be careful when purchasing such grades. We still have confidence in good hogs bought to sell here around \$3.50 for the near future.

CATTLE.—Receipts of cattle Monday were comparatively light and prices advanced 10 @15c. Since then, however, they have been fairly liberal, although less than for the corresponding time last year. The general trade ruled fairly active for dry fed steers of good quality, but since Tuesday, all other grades have ruled rather weak, and Monday's advance was lost. We look for a steady to strong market next week for the good to choice dry fed cattle, and still advise shipping as fast as cattle are ready. The range cattle will come shortly, and when the season is fairly established we believe all kinds of

(Continued on page 22.)

COTTONSEED OIL.
WEEKLY REVIEW.

AN ADVANCING MARKET.

As predicted in our review of last week, the market has further advanced, the quotations being practically for prime summer yellow $25\frac{1}{2}\text{c}$./ 26c .. It is possible that sales could be effected below these prices, but it would only be for insignificant lots, or those which are doubtful as to quality. How strong the statistical condition of cotton oil is in the country, and how well concentrated the small holdings are, is shown by the fact that the market is steadily advancing, although European inquiries have been up to this time on a very limited scale. As the week advances more interest appears to be shown in American cotton oil by Continental consumers. The adverse influence of speculators that had all along discounted the cotton oil market by their short sales, appears to be removed, at least the shorts seem to be either tied up on their old transactions to an extent sufficient to prevent them from increasing their line, or else they consider the general situation too dangerous for bear tactics. In the meanwhile, the English market for linseed and other vegetable oils have gradually strengthened and advanced, primarily, of course, on account of the increased ocean rates, but also owing to the price of various seeds at primary markets. The Liverpool market for cotton oil is 15s. 6d. to 16s. in export barrels, according to quality and quantity.

There can be no doubt that the volume of exports for the week would have been increased, notwithstanding the advanced prices and unfavorable ocean freights, but the time is arriving when the saving of a cent or two

E. H. FERGUSON, President. R. C. WAGGENER, Treasurer. J. J. CAFFREY, Secretary

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SUMMER AND WINTER WHITE "MINERS" OIL. YELLOW AND WHITE COTTONSEED STEARINE.

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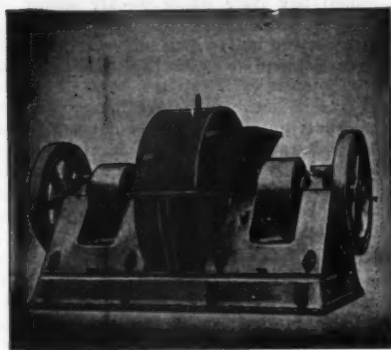
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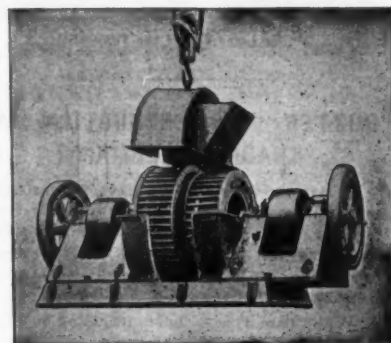
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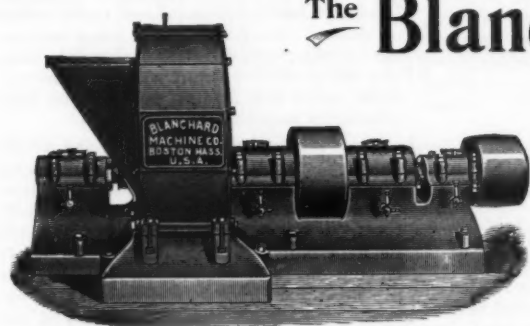
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per gallon caused by high transportation rates will become a secondary consideration. In our supplementary report will be found a report of the sales for the week.

(For Later Report see Page 40.)

BUTTER: ITS PRODUCTION AND TRADE IN GERMANY.

In last week's issue we gave the full text of the new German law regarding the trade in margarines and lard substitutes. The Berliner Tageblatt has this to say regarding the production of butter and trade in same in Germany:

"While usually the consumption of butter is moderate at this time of the year, it shows a remarkable increase this summer. In the first place, this is due to the low prices which have been prevalent for some time. Green fodder being plentiful, the production will continue to be a large one. Just at present the production is not excessively large, partly due to a lack of fodder existing till now; apparently there is also considerable quantities of butter kept out of the market. Speculators are buying up large amounts, tempted by the relatively low prices, and by their experience of previous years which shows that the insufficient supply in the fall always results in higher prices. The increased consumption of butter cannot be explained by the low prices alone. It is evident that the general public consumes more butter since its quality has been generally improved, due to the formation of numerous dairy associations. The low prices for cereals has induced the German farmers to take up dairy farming as the principal branch of their business, and the results have been very satisfactory. The dairy associations enable the small farmers to work to better advantage, their milk yielding better results in quality and quantity. The public is now taking more kindly to butter, the same being brought nearer to the consumer. While formerly butter was only to be obtained in markets and large groceries, there are now being established, even in smaller towns and in a steadily increasing number, special butter stores, which offer to the buyer a larger variety of butter. It must further be considered that the legislation against butterine has made the public more reserved toward this product. The intended effect of the butterine law failed to realize in a large measure, as dealers who formerly sold butter and butterine in many cases now deal only in butterine, as they cannot, or care not, to separate their salesrooms for butter and butterine, as required by the new law. We reported only a few days ago that, for instance, the largest North German Konsumverein (co-operative consumers' union) has decided to deal hereafter only in butterines and not in butter.

It is interesting to see that the general public obtain their supply of butterine largely in butcher stores which do not deal in butter, and therefore require no separate salesroom. The butter imported this year comes almost exclusively from Russia and Galicia. This imported butter, especially the Russian, shows lately a similar improvement in qual-

ity as does the German product. The Russian imported butter supplies principally the demand in country districts. A few years ago a successful attempt was made to import butter from Italy; this is out of the question at present, as the product there is rather scarce and prices higher than in Germany. Small shipments of American butter were brought to Germany; its consumption is, however, restricted to Hamburg, Bremen and the nearby districts. Neither was there a demand for Holland butter this year. For the last three years Germany has been sending butter to England during January, February and March, to compete there with the Danish product. The satisfactory results obtained will likely increase this export trade.

"The shipments of butter which went to Copenhagen last spring were also for the English market. Home consumption furnishes, however, the principal demand for German butter. The efforts of dairy farmers to improve their stock has resulted in an improvement of the milk. The general introduction of centrifugal separators has improved the quality of the butter; this improvement, aided by low prices, will secure new markets for this principal product of the German farmers."

OUR BUTTER FOR ENGLAND.

John Hoffgaard, now a resident of Philadelphia, but for twenty-three years Danish Consul at Manchester, England, believes there is a good market for American butter in England and thinks that it should become an important export. He says in part:

While America plays such an important part in supplying the English larder with flour, beef, hams, bacon, lard and cheese, there is at least one article where she does not get her proper share, and that is butter. There is really no reason why that should be so, for America can produce not only good butter, but plenty of it, and furthermore, the prices are low enough to leave a margin, both for a better price for the farmer and a profit to the exporter.

In 1896 the importations of butters in England were:

	Pounds.	Value.
From Denmark	1,228,784	\$31,442,035
From United States..	141,553	3,087,625
From Canada	89,357	1,697,720

Totals 3,037,974 \$76,723,415 and the importation is increasing every year.

To succeed the butter must arrive fresh and fragrant; it will then command an immediate sale at remunerative prices and regular orders will follow during every week of the year.

It is the evenness in make, freshness and reliable quantity which has secured such a good demand for the Danish butter. The whole business is worked as regular as clockwork. The Danish steamers leave the ports on Thursdays (from a few ports on Wednesdays), and arrive in England on the Sundays. On Monday afternoon, or at the latest on Tuesday mornings, all the butter is in the hands of the wholesale distributors all over England, and on the same day nearly every cask is sold to the retailers, who (outside of

London) buy their whole weekly supply on Tuesday's market.

If American butter is to succeed it must arrive in England under similar conditions, and by shipping it by Saturday's boats, it would only have a four or five days' longer journey. The whole question lies in a nutshell. The utmost cleanliness and care in the making must be observed, so as to avoid and eliminate any element which might cause deterioration and the greatest promptness should be used to get it shipped.

Holding butters back for a rise is not safe if a business is to be built up, for stored butters deteriorate in a couple of days in England, where whole casks of the 116 pounds are stripped and put along the counter on china slabs. The butter imported into England can be divided in salted and unsalted. The latter, which is preferred in London, comes principally from France—Normandy and Brittany. The Normandy is the best, and when fresh is very beautiful, but, being unsalted, it barely keeps perfect for a couple of days. Americans could never compete against that, as it will require salting to keep, and the markets where it will find a sale are those where now Danish, Swedish and Irish creameries have the run.

These are particularly the north and middle of England. Having for over twenty years been Danish Consul in Manchester, and having seen this trade grow up from its infancy, I can speak with some authority. In 1876 the importation was only about \$5,000,000. It is now, in 1896, \$31,442,035, and the first five months of 1897 show a considerable increase over the corresponding months of last year. In the fifties and sixties, when every farmer made his own butter, the importation was insignificant, owing to the irregularity of the quality.

Now all the butter is made on the large es-

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Foot Power, \$150.00 " " " 300 "
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IV.—Let brains enter into your advertisements. Have an announcement that will be looked at a second time.

V.—Follow up your advertisement with good value and genuine attention. Make your firm known far and wide for some special feature.

VII.—Do not expect buyers to rush all at once into your arms because they see your advertisement. Good buyers are like choice fish, not caught by the first bait.

VII.—Give as much attention to your advertising as you do to your banking account. Some advertisers take the smallest possible space, crowd it with as much matter as it will hold, and then wonder why it does not produce a fortune.

VIII.—Be determined that your firm shall be among those who will supply the packing houses, butchers, markets, slaughter-houses, rendering works, sausage makers, soap works, oil mills and fertilizer works.

IX.—THE NATIONAL PROVISIONER is THE medium for your firm. It goes to BUYERS and is read everywhere.

tates or in the creameries. Many of these produce only 300 to 700 pounds weekly; others from 2,000 pounds to 4,000 pounds, and some more. Every creamery has its own brand, and some are so well known that the same retailers have bought them week after week for years.

Adulteration with margarine has been found unsafe for years, but a new form sprang up half a dozen years ago. It was beautifully simple, and therefore for a time successful. It consisted of water and brine, but was nipped in the bud, and prosecutions and fines followed. It is not safe to send butters now containing more than 15 per cent. of water, though some authorities have passed 17½ per cent.

The creameries in Denmark take all the milk from a district, either buying it out and out or paying a price of about 16 per cent. less, and returning 95 per cent. of butter and skimmed milk to the farmers for feeding pigs.

Side by side with the butter trade a great export of bacon has been created, and, owing to this milk feeding, the bacon gets a superior flavor and realizes from one to two cents a pound more than American.

In 1880 Denmark exported only about \$250,000 of bacon and hams, and 200,000 live hogs to Germany; now the bacon export amounts to \$13,000,000. The importance of these amounts will be fully appreciated when it is noticed that Denmark has a population of 2,100,000 on an area of 15,000 square miles; that it is in size and population just like a third of a State like New York or Pennsylvania. The amount or quantity which the United States would produce may, therefore, be called unlimited, and it is certainly a good field for American enterprise.

CHICAGO LIVE STOCK REVIEW.

(Continued from page 18.)

native grass cattle and common grades will sell at a lower range of prices.

SHEEP AND LAMBS.—Receipts of sheep and lambs continue moderate, and under a good demand the trade ruled strong, and prices averaged a little higher than a week ago for everything that was at all desirable. The outlook is still favorable for good fat sheep and lambs, but we would not be surprised to see some reaction in the near future, especially if receipts are as liberal as the trade generally expect. We believe in shipping sheep and lambs as fast as they are fat enough for the market. The demand for feeding sheep is very large, but the supply is small with prices nominally higher.

THE YEARBOOK FOR 1896.

We are in receipt of a copy of the Year-Book of the Department of Agriculture for 1896. The book is well bound in cloth and contains 600 pages, the complete edition numbering 500,000 copies. Of this number, 30,000 are placed at the disposal of the Department, while the remaining 470,000 copies are placed at the disposal of the Senators, Representatives and Delegates in Congress for free distribution to their constituents. The annual report of the Secretary of Agriculture (then the Hon. J. Sterling Morton) contains considerable useful information, while the balance of the work is devoted to the treatment of agricultural subjects, some of which we may reprint later on for the benefit of our readers.

**ARE YOU OUT OF EMPLOYMENT?
DO YOU WANT A POSITION? TRY A
LITTLE AD. ON PAGE 45.**

CHICAGO PROVISION MARKET.

The speculative market this week in provisions shows a fair advance on all products over the report of last week. Speculative trading has been quite active. The general surroundings of the trade favorable for higher prices, but the chief factors were the falling off in the receipts of hogs with an advance in prices and in urgent demand for all descriptions both from foreign and domestic sources. Offerings were not large, inquiry fairly active. Shorts were a little more active to provide for their outstanding contracts, and at times there was a little realizing by longs, but sellers as a rule manifested more conservatism than for some time past. Although hogs were 5c. higher yesterday, provisions showed no strength. There was a liberal selling of ribs by some interests supposed to have been Armour, although it was done through commission houses. Hately, Roloson and Carrington-Hanna led in the selling. Packers make different claims in regard to cash transactions, some claim that it is excellent, others claim a pause.

The general trade favored the long side of the provision market, but anything bordering on a bull movement lacked support. Although there was a liberal selling of ribs they found a ready market, the New Yorkers taking all offerings. The estimates on stocks August 1 is figured at about 5,000 tierces of lard and 3,000,000 lb ribs. These estimates suggest that possibly the selling of ribs was on the theory that stocks might prove disappointing to bulls. The outlook from all sides would indicate a continued advance on all products, and we anticipate a fair though gradual advance all along the line.

Packers bought hogs as follows last week: Armour, 26,000; Anglo-American, 15,400; Boyd & Lunham, 6,900; Chicago Packing Co., 2,800; Continental, 6,700; Hammond, 3,300; International, 7,600; Lipton, 8,500; Morris, 7,700; Swift, 18,600; butchers, 6,500;

making a total of 110,000 against 110,600 the previous week and 84,700 a year ago.

RANGE OF PRICES.

THURSDAY, JULY 22—Holiday.

FRIDAY, JULY 23.

	Open.	High.	Low.	Close.
PORK —				
July.....	7.60	7.72½	7.60	7.57½
September...	4.10	4.12½	4.07½	4.10
LARD —				
September...	4.15	4.15	4.12½	4.15
RIBS —				
September...	4.45	4.50	4.45	4.50
October.....	4.50	4.55	4.50	4.55

SATURDAY, JULY 24.

PORK —				
July.....	7.75	7.77½	7.75	7.70
September...	4.12½	4.20	4.12½	4.20
October.....	4.17½	4.22½	4.17½	4.22½
LARD —				
September...	4.52½	4.60	4.52½	4.60
October.....	4.57½	4.65	4.57½	4.62½

MONDAY, JULY 26.

PORK —				
July.....	7.77½	7.80	7.72½	7.67½
September...	4.22½	4.27½	4.22½	4.25
October.....	4.27½	4.30	4.27½	4.27½
LARD —				
September...	4.67½	4.70	4.65	4.67½
October.....	4.70	4.72½	4.70	4.70

TUESDAY, JULY 27.

PORK —				
July.....	7.70	7.72½	7.65	7.70
September...	4.22½	4.27½	4.17½	4.20
October.....	4.25	4.27½	4.22½	4.25
LARD —				
September...	4.67½	4.67½	4.62½	4.62½
October.....	4.70	4.70	4.65	4.65

WEDNESDAY, JULY 28.

PORK —				
July.....	7.70	7.72½	7.60	7.70
September...	4.15	4.17½	4.12½	4.15
October.....	4.22½	4.22½	4.17½	4.20
LARD —				
September...	4.60	4.60	4.55	4.60
October.....	4.60	4.62½	4.57½	4.62½

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WEIGHT, 20 lbs.



Sausage manufacturers have for a long time been looking for a machine to run the casings on to the tubes of stuffers. Here we have it, and it will do the work as well as it can be done by hand and in very much less time, thereby saving labor and time, as with this machine one man can stuff as many sheep or hog casings as three or four men can link, besides doing away with the most tiresome work there is in stuffing sausage.

The machine takes practically no power to run, only a 1/4-inch round belt, the same as a sewing machine, and uses no more power than a sewing machine. It does not need an extra operator, as the machine can be used by either one or two men on steam, power or hand stuffers and is never in the way, because when the machine has put on a casing it immediately rises up by itself 8 inches and stays there until needed again. It will run on about 100 feet of sheep or hog casings in about 7 seconds and will handle tender casings just as delicately as the hands of the workman. Two lined wheels go with each machine, but it is only necessary to have one of them on the machine, even when two men are working it; so there is always one wheel in reserve.

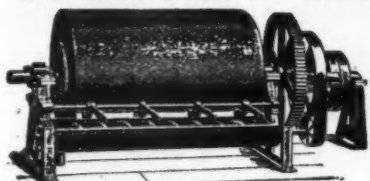
A glance at the cut opposite shows the machine at work and after it has put on a casing.

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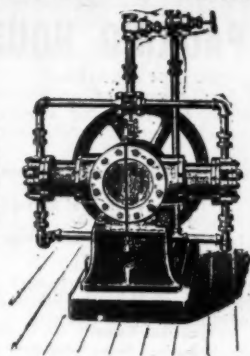
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**WANT AND FOR SALE ADS CAN
BE FOUND ON PAGE 45.**

TECHNICAL. THE PACKING HOUSE.

FOURTH SERIES.

Included in the series of articles on *The Packing House*, the following subjects have been exhaustively treated on the dates indicated:

- Dec. 26, 1896.—"The Manufacture of Sausage Casings and Packing Same."
Jan. 2, 1897.—"The Manufacture of Sausage Casings and Packing Same." No. 2.
" 9, 1897.—"The Manufacture of Sausage Casings and Packing Same." No. 3.
" "About Beef Extract."
" 16, 1897.—"On Cutting Meats (Pork.)"
" 23, 1897.—"The Necessity of Cleanliness in the Handling of Perishable Products."
" "American Swine."
" 30, 1897.—"American Swine." No. 2.
Feb. 6, 1897.—"The Preparation of Blood Albumen."
" "American Swine." No. 3.
" 13, 1897.—"Proper Ventilation in Packing Houses."
" 20, 1897.—"Proper Ventilation in Packing Houses." No. 2.
" 27, 1897.—"Proper Ventilation in Packing Houses." No. 3.
March 6, 1897.—"Proper Ventilation in Packing Houses." No. 4.
" 13, 1897.—"Proper Ventilation in Packing Houses." No. 5.
" 20, 1897.—"Proper Ventilation in Packing Houses." No. 6.
" 27, 1897.—"Steer and Heifer Beef." No. 2.
April 3, 1897.—"Steer and Heifer Beef." No. 2.
" 10, 1897.—"Manufacture of Oleo Oil." No. 2.
" 17, 1897.—"Manufacture of Oleo Oil." No. 2.
" "Steer and Heifer Beef." No. 3.
" 24, 1897.—"Manufacture of Oleo Oil." No. 3.
" "Export Beef Trade." No. 3.
May 1, 1897.—"Manufacture of Oleo Oil." No. 4.
" 8, 1897.—"The Scouring of Wool." No. 4.
" "Manufacture of Oleo Oil." No. 5.
" 15, 1897.—"Baller Compounds." No. 2.
" 22, 1897.—"The Scouring of Wool." No. 2.
" 29, 1897.—"Steer and Heifer Beef." No. 4.
June 5, 1897.—"Steer and Heifer Beef." No. 5.
" 12, 1897.—"Steer and Heifer Beef." No. 6.
" 19, 1897.—"The Process of Thawing Frozen Meats."
" 26, 1897.—"Steer and Heifer Beef." No. 7.
" "Manufacture of Lard and Allied Products."
July 10, 1897.—"Early Lamb Raising."
" 17, 1897.—"No More Hog Cholera."
" 24, 1897.—"The Smithfield Ham."

THE CURING OF MEATS.

In the above report (printed last week) full details have been given, including the names of the packers, in view of the limited and comparatively local trade affected and of the value of presenting for the information of pork breeders generally, some of the nice points involved in the production of superior and high-priced pork.

Other inquiries in regard to the processes in use in the United States of curing meats, particularly hams, suggested the utility of extending like inquiries to other places. Letters were addressed to inspectors of the Bureau of Animal Industry at the principal packing houses of the country, asking them to obtain for comparison the formula used by the packers in preparing such products for the market.

Last week the first installment of this article was published under the caption of "The Smithfield Ham," the article complete being from the pen of a special United States Department of Agriculture inspector.

In a comprehensive report concerning the curing of hog products in a Western packing plant the feature of especial interest embodied is a description of the process of pickling by injection.

The curing of the meat commences when fresh-slaughtered swine are placed in a chill room, the temperature of which is 40° F. at the start, gradually falling to 28° F. thirty-six hours later.

After remaining in this condition forty-eight hours the carcasses are removed to an adjoining room, where they are cut up in such sizes and shapes as the quality of the meat or demands of the market require. From the cutting bench the meat passes to the curing rooms below, where it is then exposed to the action of the following described pickle:

Formula for curing hams, shoulders, bacon, dry salt meat, and mess pork:

	Parts.
Chloride of sodium	78
Saccharine	28
Nitrate of potash	20

Use of pure water, a sufficient quantity to make a 78 per cent. solution.

Hams and shoulders are first injected with this solution. The process is as follows: A hollow needle, 10 inches long, to which is attached a rubber tube connecting with a small vat containing the pickle, is inserted three or four times in different parts of the ham. At the same time a lever is lowered which forces the liquid through the needle into the depths of the ham. The ham is then placed in the pickle, where it remains for ten days. It is then removed and the injecting process repeated.

Large hams weighing 20 pounds or more may require a third injection. Two injections and sixty-four days in large vats, submerged in the above pickle, completes the cure with the exception of smoking.

This consists in placing the meat in a close, dark room, where it is suspended from the ceiling. It is then subjected to a dense smoke caused by the destruction of hickory or ash wood by heat for twenty-four to forty-eight hours, the former being considered a mild cure.

Bacon is first injected with the pickle in the same manner as the hams, after which it is placed in large vats and entirely submerged in the pickle. At the expiration of ten days the rejecting process is repeated, when the meat is again returned to the vats. In about sixty days the curing is completed, with the exception of smoking, which is conducted in the same manner as the hams.

Dry salt pork is first injected with the pickle in the same manner as the other mentioned products. After receiving the injection it is merely dipped in the solution. While still damp it is thoroughly hand rubbed with salt. It is then laid on the floors of the cellar, where it lies for ten days, at the end of which time the injection is repeated, as well as the dipping, and hand rubbing with salt. In heavy meat the third operation is necessary to thoroughly cure the meat, which is accomplished in ninety days.

Mess pork is cut into convenient sizes and pieces, and packed firmly in barrels made for the purpose. The pickle used in the other

kinds of meat above described is then poured into the barrel until it is filled, when it is headed.

In sixty to ninety days the curing is completed. The difference in time required is due to the thickness of the meat.

The following formula is the one in use by a large New England packing house.

Hogs should be well cooled before cutting. Hang forty-eight hours in 35° temperature. For a tierce, 300 pounds of hams, 18 pounds of salt, 1 pound saltpeter, 7 pounds sugar. Fill the tierce with water. Keep in a temperature of 38° to 40°. Overhaul twice a week or oftener, if case requires, for four weeks. Will be ready to smoke in sixty to eighty days, as to size.

Hams from well cooled hogs use 8 pounds salt, one-fourth of a pound saltpeter, 2 pounds sugar for 100 pounds meat.

Medium sized hams will be cured enough to smoke in forty-five days if kept in a temperature of 38° to 40°.

Incidental to a description of the method of curing meats both by the "dry salt" and the "pickle" cure, another report explains the process of the manufacture of "California," "boneless" and "cottage" hams:

The hogs after being slaughtered are left in the cooling room about half an hour. The carcasses are then put into the room, whose temperature is about 44° and left there for about six hours or until the animal heat has left them. They are next transferred to another room, the temperature of which is 32°, and left there for twenty-four hours. From here they are taken to the cutting room and cut into special pieces, the quality of the hog and supposed condition of future trade (when cured) governing the kind of cuts made out of the carcasses. For instance, three kinds of so-called hams are made from shoulders, viz., California, cottage, and boneless hams. They are made as follows: The shoulder is cut in two and the upper part is cut round to resemble a ham. This is called a California ham. The lower part, with the leg cut close off and part of the shoulder left in, is called a cottage ham, and when the shoulder blade is taken out it is called a boneless ham.

Then we have the genuine hams made out of the hindquarters. They are called long-cut hams when the shank is left pretty long, and short-cut when left short. They are divided into three grades—light, medium and heavy. They are cured by two methods, viz., first, dry salt cure; second, pickle. It appears that by the latter method the packer gets more weight out of his product.

Dry-salt cure.—About half an ounce of saltpeter (nitrate of potash), half an ounce of sugar, and one-half pound of common salt to each ham, rubbed in. They are then put in the cellar and left from five to seven days, when they are turned over and left for about twenty-eight days. They are then cured. Heavy hams in summer weather will take a few days longer.

Cured in pickle.—The strongest pickle registers 24° by the pickle tester. You cannot make it any stronger, as the water will not dissolve any more of the ingredients. What is called mild cure registers about 16°. It

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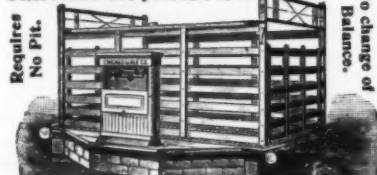
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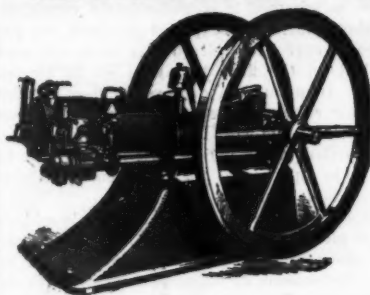
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TECHNICAL.

is made as follows: Eight ounces of saltpeter, $3\frac{1}{2}$ pounds sugar, 21 pounds of salt, and 12 gallons of water. This is sufficient for one tierce. The tierces contain 280 pounds of ham. They are rolled around every day for fifteen days to keep the pickle from settling, and the hams are cured in from thirty to thirty-five days. If not called for before ninety days, the pickle is drawn off, the hams are taken out of the barrels, piled in cold storage, and a sprinkling of borax thrown on them. If they are to be shipped, fresh pickle is put on them, and it is generally of 20° strength.

The other cuts such as bellies, sides, backs and shoulders, are cured in the same way, excepting that the sugar is generally left out of the formula. Saltpeter is left out in curing what is called French back. Dry-salt cured meats when shipped are sometimes packed in borax and sometimes in salt.

Smoked Meats.—After being cured they are put in a vat and washed. Then they are put in a smoke house and smoked with hickory wood from thirty-six to forty hours. Sometimes they are shipped in bulk, sometimes packed in boxes. Sometimes they are sewed up in covering with a gaudy brand on it and sold to the trade.

The report from another abattoir in the same locality shows only a slight difference in the treatment of the hog products:

The hogs are left about six hours in the cooling room, as there is no intermediate room. The chill room is always down to 32°, so the animal heat must be allowed to leave the carcasses before putting them into so cold a place, or they would freeze on the outside and spoil in the center. When any meats begin to get old, borax is used very liberally, and when dry-salt cured meats are shipped they are very often packed in borax.

A statement of methods which have been adopted by another packing company in curing various kinds of meats is furnished in the following:

Barreled Beef.—Chilled at 40°; carried in brine pickle 70° strength, using $2\frac{1}{2}$ ounces saltpeter to 100 pounds beef. This is used for all such things as mess beef, plate beef, etc.

Beef Hams.—Chilling temperature 40°. After chilling carry in 70° strength brine pickle; use $3\frac{1}{2}$ ounces saltpeter to 100 pounds beef; 2 pints of syrup to 220 pounds beef.

Beef, Hogs, and Sheep Tongues.—Use 70° strength brine pickle; 3 ounces saltpeter to 100 pounds tongues; cure in temperature of 40° to 45°.

Pork Hams.—To 100 pounds hams, 2 pounds 11 ounces best granulated sugar, 3 ounces saltpeter, 4 ounces borax, sufficient salt to raise $5\frac{1}{2}$ gallons of water to 75° strength. Salt, sugar, etc., are well dissolved before mixing, and filtered into the pickle.

When chilling hogs, hold coolers at 32° to 34° temperature; leave hogs in coolers forty to seventy-two hours; after cutting, rack the hams in a room at 32° to 34° for twenty-four hours, after which pack in above pickle. At the age of 60 days the pickle shows a strength of 53° to 54°.

Dry Salt Meats.—Hogs are chilled as stated under the heading of "hams." After being cut the salt meats are piled up in a dry salt with a very light sprinkle of saltpeter. They are overhauled at the end of five, fifteen and thirty days. During curing they are kept in a temperature of 40°.

Special reference to a difference in treatment of meats designed for foreign or domestic trade is made in the system of curing given below:

After slaughter the carcasses are allowed to

hang in the cooling room for about forty-eight hours before being cut up, and as each piece is trimmed it is immediately consigned to the cellar. Those pieces destined for the dry-salt cure are well rubbed with salt and packed on the floor in layers six to twelve high. In about ten days more they receive another rubbing of salt, and are packed as before, and again in fifteen days the process is repeated, after which they are allowed to stand in bulk until they are cured, which takes about forty-five days.

To English meat a little saltpeter is added. For pickling hams the following is the formula, the quantities named being sufficient to cure 280 pounds of meat, and its strength as indicated by the salimeter is 80°.

	Pounds.
English salt	21
Saltpeter	1
Sugar	4

Water sufficient to fill the tierce in which the meat is placed.

The tierce is then closed, and for the first three or four days it is rolled around daily three or four times to insure an equal distribution of the pickle. Every three or four days thereafter the process is repeated, the time required for curing varying, according to the size of the hams, from forty-five to eighty days.

At this stage the meat can be supplied to the trade, but for certain kinds of trade, especially the domestic, it has to undergo the process of smoking for from twenty-four to twenty-six hours. Breakfast bacon and other pickled meats are treated in a similar manner, and require from twenty to forty days in curing.

Two processes in use at one packing house, denominated the "dry-salt cure" and the "sweet pickle cure," are thus outlined:

There are two methods of curing, one called "dry-salt cure" and the other "pickle cure." In the former, after the meat has been sufficiently cooled so as to get out the animal heat, which generally takes from twenty-four to forty-eight hours, according to the season of the year, the meats are well rubbed in salt and bulked on the floor, usually from six to ten high, and resalted again when they are about from three to five days old and left lie until they are about twenty days old, when they are resalted once more, being bulked higher each salting, so as to not take up too much room, and left in the bulk until it is fully cured, which usually takes about from forty-five to fifty-five days, according to the size of the meat. The extremely heavy meat would of course take sixty days in order to get it fully cured. We use nothing but Kansas salt in the dry-salt cure, except a small amount of saltpeter for the shoulders.

For the sweet pickle cure the meat is handled in the same manner, except that instead of being cured in bulk it is cured either in large vats or tierces. It takes about the same length of time to cure in pickle that it does in dry salt. The sweet pickle is a

brine which is made from Kansas salt, with a small portion of saltpeter and borax added and a sufficient quantity of syrup to give it a sweet flavor.

A brief sketch of the operations and curing process of a great packing house reads:

After the hogs are killed they are run on rails into a chill room, usually at a temperature of 38° to 40°, for about twenty-four hours. Next day the temperature of the chill room is reduced to 32° and the hogs are left in there for twenty-four hours more; that is, forty-eight hours before being cut up into the various cuts as the trade demands. After the hams are chopped or sawed off the side of the hogs, they are trimmed and dropped down a chute into the curing room, where they are sized and sorted according to the quality of six different grades. They are then trucked out into the spreading room, 32° temperature, where hams or shoulders are each separately spread on latticed racks or hung on hooks for twenty-four hours at least. They are then taken and weighed into oak hogsheads containing 1,300 to 1,500 pounds of meat, or into tierces of 300 pounds each, and pickled with brine 60 to 80 per cent. strength, to which solution of salt and water is added 2 pounds of pure cane sugar and 4 ounces of saltpeter to the 100 pounds of meat, and then tightly pressed down underneath the pickle to keep air tight. It is then overhauled or taken from one hogshead and placed into another four different times so that the pickle may reach all parts of the pieces of hams or shoulders; also that it can be evenly and uniformly cured, which takes from sixty to ninety days, according to the weight and size of the pieces of meat.

A process dissimilar in some details from the preceding was outlined by another correspondent, viz:

The hogs after being dressed are hung up in the chill room, cooled by artificial cold, the temperature being about 34° to 38°, not less than forty-eight hours, and when thoroughly cooled are made into various cuts. The regular American cut ham for sweet pickling is then put into vats or tierces and to every tierce of 300 pounds, or its equivalent in the vat, we use three-quarters of a pound of East India saltpeter, half a gallon of sugarhouse syrup of high grade, and 27 pounds of salt. This is partly made into a pickle and partly put into the tierce dry; when tierces are used the tierce is moved after being packed, say six or seven days, for the purpose of giving the hams a more uniform cure or preventing salt from settling and remaining at the bottom of the tierce. If cured in vats the hams are removed from one vat to another, and brine poured over again, this for the purpose of mixing the brine and keeping it uniform throughout the vat; the hams being kept in cold storage in temperature of 34° to 38° for a period of forty-five to sixty days. Sweet pickle meats—that is shoulders and bellies—are treated the same way. The meats for dry salting, being chilled as aforesaid, are

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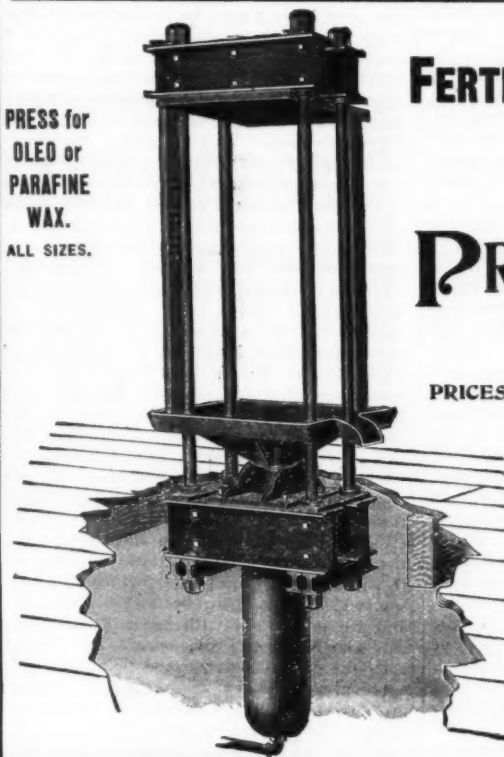
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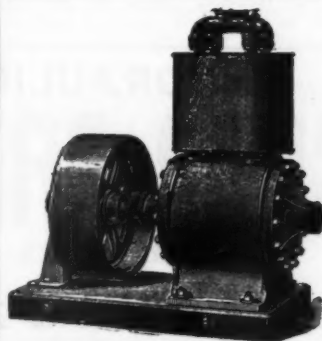
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TECHNICAL.

put into cold storage in bulk, and the same amount of saltpeter is used with them as in the sweet pickling, one-quarter of a pound to 100 pounds, and then they are bulked in salt. The amount of salt used depends on the length of time they are kept in bulk before shipping. These are resalted from time to time, they being restacked at intervals, until they are ready for shipping. It is difficult to tell the exact amount of salt, they having to be entirely covered when in process of curing, the salt having to be swept off before shipping and packed with fresh salt. The sides remain in salt not less than thirty days, and if heavy a longer period; the hams and shoulders forty-five days and upward, according to the size of pieces. These must remain in this condition until sold and shipped, sometimes remaining some months.

A description of the methods of curing hams, making barrel beef, shipping sweet pickle meats, and preparing fresh canned meats is embodied in the following:

After the hogs are killed they are hung up in the cooler for forty-eight hours or more, until the temperature of the meat in the center is 40° F., or cooler. The hogs are then cut up and the hams or shoulders are placed in a cooler at about 30° F. for forty-eight hours or longer. Three hundred pounds of ham are usually placed in a tierce; for one tierce of hams 24 pounds of Saginaw salt, 12 ounces nitrate of potash, and 5 pounds Louisiana sugar. The tierce is filled with water. For pickling in vats the same proportion of ingredients is used. Sixteen-pound hams cure in sixty days in a temperature of 40°. After packing, the barrels must be rolled once every two weeks in order to detect leaks and equalize the pickle. In some cases the pickle is injected into the hams in order to hurry the process. By this method a pickle can be effected in about thirty-five days. This, however, is not the usual practice. I find that the proportion of ingredients varies some according to whether they are making a mild or strong cure. For meats going to hot countries strong pickle is usually used, and in smoking the same is the case.

In making barrel beef they usually put 200 pounds of beef in a tierce. One peck of coarse salt is put in the bottom of the barrel. The pieces are rubbed with fine salt and packed. Eight ounces of nitrate of potash is added, together with one peck of coarse salt on the top of the barrel. The barrel is then filled with a solution of salt 100 degrees strong. The barrel is rolled once a week and is considered cured at the end of four weeks. It is kept in cold storage about 35° to 40° F.

In shipping sweet pickle meats, it is usually the custom after they have been removed from the pickle and dried, to rub them with finely powdered borax. They are then packed in boxes and shipped in that condition, although they are also shipped in salt and in pickle.

In curing dry-salted meats the meat is thoroughly rubbed with salt and packed in piles in cold storage of about 40°. It is handled about once every two weeks, when it is unpiled and rubbed again with salt and repiled, that on the top being placed on the bottom and vice versa. The moisture of the meat furnishes the water for the pickle.

(To be continued.)

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OIL MILLING.

NO. 4.

In our last article we referred to the modern cooker or heater. The builders of oil mill machinery in the United States have undoubtedly largely contributed to making oil milling as it exists to-day a more remunerative business than it would otherwise be, apart from the actual commercial value of the raw and manufactured products. With the crude mechanical appliances and methods which prevailed, say twenty years ago, it would be impracticable to manufacture oil and cake to-day even at the smallest margin of profit. A glance at the prices of seed which obtained during the late season and the comparatively small sum in excess of this latter which represents prices of cake, meal and oil will readily demonstrate the curtailed margin of profit which falls to the manufacturer to-day. But as previously shown, it is impossible to put brains into machinery, and the secret of success in the running of a well equipped mill lies very largely with its management. Perhaps this comprehensive statement applies to manufacturing industries generally, but scarcely we believe to so pronounced an extent as in oil milling. A hundred corroborative instances might be cited in support of this statement. Talking about machinery with brains as part of its equipment, perhaps the nearest approach we have seen to this desideratum is the Pratt & Whitney automatic weighing machine. In this especial instance and for the aims in view, the acme of perfection has been reached. A machine which will automatically weigh and register 2,500 bags of meal in a day of ten hours, absolutely reliable in its work, and without the ever threatening danger of a breakdown, is truly the oil miller's beau ideal. The mill which operates one or more of these machines, according to its capacity, has a decided advantage over the mill which does not. We are pleased to know that although the Pratt & Whitney automatic weighing machine has been but a comparatively brief period on the market, quite a number of the crushers have demonstrated their determination to keep up with the times by operating these machines during the forthcoming season, which spirit also reflects credit on them, and we might add with becoming modesty, on "The National Provisioner," for having been the first to observe and point out in a practical way the genuine merits of the weighing device in its applicability to oil milling needs.

During the recent convention of the Superintendents in Houston, Texas, the question was raised as to the best means of prevent-

ing breaks or strains in the press box. The laconic comment made by a veteran miller who was present, "Make them stronger," was significant. The box press as it exists to-day is put together in a manner, which, in conjunction with the excellent material, is a guarantee of great tensile strength, and which should suffice for ordinary purposes. However, the tremendous strain which it is regularly subjected to, must presumably, tell in time, and yet it is difficult to arrive at a conclusion concerning this question which will not partake of a greater or less amount of uncertainty. For instance, the writer has used corrugated plates in linseed crushing for many years, which were especially annealed for this purpose. The plates were strong, of a grade which might be termed half steel, six weeks being occupied to bring them to the desired condition. Many of these plates have been in operation almost continuously from the time of their installment, probably eighteen years ago, proving as serviceable to-day as when first placed in position. On the other hand a break which might occur in a plate, rendering its immediate replacement by a duplicate necessary, would be followed by a succession of breaks in the plates which would be selected to fill the place made vacant by the original cracked or broken one. As many as six plates have been substituted, only to be rendered useless within a period of two weeks, before one possessing the necessary strength had been secured. Yet the plates which had been put in, in the first instance gave satisfaction, a break being of rare occurrence. While the giving out, or breaking of the plates, which had been many years in operation might be accounted for by the process of disintegration, caused by prolonged subjection to heavy pressure, the same reason cannot be assigned as being the cause of the newly made plates breaking. The difficulty probably lies in the annealing and preparatory process. However, a careful investigation of the cause of press plate breaks led to the discovery that where the meats were improperly molded, the probability of breaks was more frequent. That is to say, the set of presses which had been charged with material improperly molded was more liable to show breaks in the plates than when regularly formed in the preliminary pressing.

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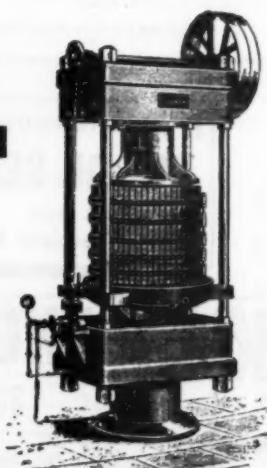
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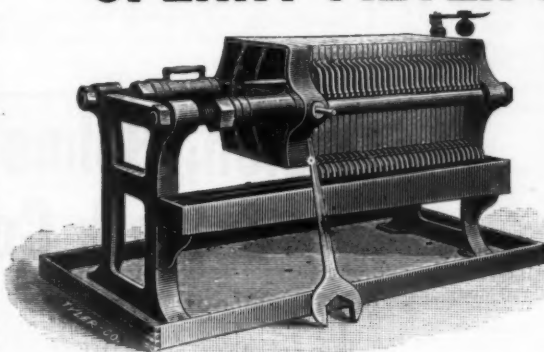
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SOAP MAKING.

NO. 54.

FATTY MATTER.—The fatty matter of soap is present in two forms, free and combined; the former should, in the best grades of soap, be present only in trifling amount. In some so-called superfatted soaps, an excess of free fat, usually present in the form of wool fat or lanolin, is purposely added.

FREE FAT.—To ascertain the amount of free fat in soap, the dried 10 grams of soap left after the determination of the moisture (vide supra) are wrapped in a piece of filter paper and placed in a Soxhlett fat extraction apparatus and extracted with petroleum ether. The operation may be allowed to take one and a half hours, the ethereal liquid is run into a weighed glass, the ether evaporated off in an air bath, and the residual free fat weighed. The fat so obtained will consist of the portion of fat which has resisted the saponifying process, any small proportion of unsaponifiable matter which may have been present in the fats or oils used to make the soap, any fatty material added to "superfat," the soap and any fatty matter, such as mineral soap stock, which may have been added as a filling to the soap.

The total fat which is present in the soap is determined in the 10 grams which have been used for the titration for free and combined alkali (vide supra). After the titration for the alkali, a slight excess of acid is added, and the mass is heated over a bunsen burner until the fat separates out on the top of the aqueous liquor in a clear transparent layer of oil. Two plans may be followed for collecting and weighing this fat. The method commonly recommended is, with all those soaps which will give a solid fat, to allow the fat to cool and set into a solid cake; the aqueous liquid is now run off, and clean water added. The mass is now heated until the fat is once more melted, when it is again allowed to cool; the cake of fat is separated from the wash water, dried between sheets of filter paper, and weighed.

When the soap is of such a character as to yield fat, that will not separate out as a solid cake, but remains more or less liquid or paste; 10 grams of white wax or of paraffin wax are added to the fat and melted up along with it, and finally weighed with it. From the final weight that of the wax is deducted, leaving the weight of fat present in the soap.

There are some objections to this method of working, which requires care in execution, if good and reliable results are to be obtained. It is difficult to entirely remove the whole of the fat from the sides of the glass beaker which is used in carrying out the operation;

this tends to reduce the amount of fat found. Then it is difficult to free the cake of fat from all traces of moisture, and hence there is a liability from this cause to increase the apparent weight of fat. The two sources of error thus indicated, acting in opposite directions, may tend to neutralize one another. Another objection to the method is the time it takes.

The following process is recommended which gives good results: After titrating with standard acid for the alkali, and melting the fat as described above, a small quantity of petroleum ether is added and the mixture poured into a separating funnel; more warm, but not hot, water is added with, if needful, more petroleum ether. The contents of the funnel are now well shaken and then allowed to stand to settle, when two layers will form, the upper one of ether with the fat, the lower of acidulated water. The latter is now nearly, but not quite, run off, and fresh warm water added to wash the fat, this being repeated if required. The ether layer is now run into a weighed glass beaker, the ether evaporated off, and the residual fatty matter weighed.

By any of the processes above described there is obtained the total weight of fat in the soap. This fat will contain the free fat, as well as that present in combination with the alkali as soap; the amount of the latter can be ascertained by deducting the amount of free fat which has previously been ascertained. The combined fat consists essentially of fatty and resin acids. We do not obtain them in the form in which they are present in the soap, where they are combined with sodium Na as acid radicles, which may be represented by R, in the compounds of which NaR is the typical formula, but as fatty acids of the type HR. It therefore follows that the weight of fatty acids found are slightly—1 in 282—in excess of the truth, and that a well-made analysis of soap, taking the water and fatty matters as found, the free alkali as NaOH, the combined alkali as Na, will come out slightly in excess of 100; this excess will range from 0.1 to 0.3, according to the quantity and character of the fatty matter present.

If the soap contain much coconut oil, the results obtained in determining the amount of fatty matter by either of the methods given will be too low, owing to the oil containing fatty acids which are soluble in water, and these pass into the wash waters, and so are not collected and weighed.

Another process is recommended as follows:—Ten grams of the soap are dissolved in water and decomposed by a slight excess of dilute sulphuric acid; the glass or flask containing the soap mass is then heated until the fatty matter collects in a clear layer on the surface of the aqueous liquid. The ves-

sel and its contents are now cooled and the cake of fatty acids separated out, while the aqueous layer is filtered through a wet filter paper. The cake of fatty acids is washed three times with 250 cubic centimeters of boiling water, cooling and filtering each time. The various filtrates are collected; methyl orange is added as an indicator, and the liquor titrated with decinormal caustic soda until the pink color changes to yellow. By this means the excess of mineral acid used in decomposing the soap is got rid of. To the liquid is added phenol-phthalein, and the titration continued until the characteristic pink color is got. The amount of standard soda solution used corresponds to the amount of soluble fat acids present, and these are calculated to caprylic acid, $\text{HC}_8\text{H}_{15}\text{O}_2$, by multiplying by the factor 0.0144. The cake of fatty acids may be dried and weighed, thus giving the amount of insoluble fatty acids.

It may be mentioned here, that by collecting the fatty acids, dissolving them in neutral methylated spirit, using phenol-phthalein as an indicator, and titrating with standard caustic soda, there is obtained the amount of alkali required to combine with the fatty acids to form soap; if in previous tests more has been found, then such excess must be present in other forms.

In case the soap analyst adheres to the method of calculating the alkali as sodium oxide, Na_2O , then he must reckon the fatty acids as anhydrides; the quantity of these he may calculate from the amount of fatty acids found by multiplying by the factor 0.97, which, while not accurate for every case, is sufficiently so for all the common grades of soaps.

(To be continued.)

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THE HAMMOND COMPANY* CHOICE
Chicago Dressed Beef,
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174 and 176 Fort Greene
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HOBOKEN BEEF CO., Ho-
boken, N. J.**N. H. Snyder,** SHIPPER AND DEALER IN
Standard Provisions
and Meat Specialties,

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Telephone Call:
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solicited. Orders by Telegraph or Letter promptly attended to.TELEPHONE 575A,
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WHOLESALE DEALERS IN

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Main Office and Abattoir, 613 to 619 West 40th Street, New York.

Branches at: West Washington Market, New York, 180 Fort Green Place, Brooklyn.
ALSO DEALERS IN

PULLED WOOLS, PICKLED SHEEP AND LAMB PELTS.

THE HARLEM PACKING HOUSE**RICHARD WEBBER,**

OFFICE AND REFRIGERATED SALESROOMS:

120th Street and Third Avenue,

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SLAUGHTERER
OF AND DEALER IN
CATTLE, HOGS
AND POULTRY.
PORK AND BEEF
PACKER.
LARD REFINER.
CURER
OF FINE PROVISIONS
FOR HOME AND
EXPORT TRADE.ABATTOIRS, FOOT OF W. 39th ST., NEW YORK
ST. JOSEPH, MO. SIOUX CITY, IA.**Insulating Paper.**

Guaranteed Pure Manila Rope.

Made Especially for Lining Refrigerators,
Cold Storage Buildings, Refrigerator Cars,
Ice Houses, and Drying Kilns.

Samples and Prices for the Asking.

C. S. GARRETT & SON,
PAPER MAKERS,

Nos. 12 and 14 Decatur St., Philadelphia, Pa.



PACKING HOUSE NOTES.

Manufacturers of machinery and fixtures interested in these notes, should also consult the items under Ice and Refrigeration, and other trade news columns in this paper.

Employers in want of help, and employees in search of positions, and such wanting to dispose of machinery or desiring to purchase same should look at our **WANT AND FOR SALE COLUMN** on page 45.

Persons contemplating the erection of packing houses or in need of packing house machinery will do well to make their wants known in this column. The foremost firms in the lines mentioned closely peruse the notes in this page, and prospective purchasers of machinery would be placed in immediate communication with them.

* Exports from New York last week were: Pork, 4,732 bbls.; lard, 4,596,210 lb, and bacon, 4,842,900 lb.

* A syndicate composed of several big hotel men and cattle raisers have secured a lease of the market at Laguna and Grove streets, San Francisco, Cal., belonging to Mrs. Mowry, and are preparing to put in a big wholesale and retail meat establishment, sausage manufactory and refrigerating plant. It is said that the equipment will cost \$25,000, and will include an electric light plant. They expect to be ready for business about the middle of August.

* Plans for the new packing house of Starkey Bros., in Winona, Minn., have been completed. The building will be 40x96 feet and two stories high, the cold storage part at the rear being a little higher than the rest of the building.

* Armour & Co., of Kansas City, have made arrangements with the St. Paul Union Stockyards Company in that Minnesota city whereby the latter will do such killing for Armour & Co. at South St. Paul as that company requires to supply its Northwestern trade. Instead, therefore, of buying its live stock elsewhere and having it slaughtered at Kansas City and shipped to St. Paul, Armour & Co. will purchase its stock in the latter city. Gen. M. B. Flower, the general manager of the St. Paul Union Stockyards Company, said: "Since the appointment of a receiver of the Minnesota Packing and Provision Company and its removal from South St. Paul, we have secured from the receiver the use of the company's beef house, in which to do our slaughtering. For several weeks past we have been killing for a number of meat jobbers and shall continue to do so, as long as they desire to have us. Recently we have made an arrangement with Armour & Co. to kill such beef, mutton and pork as they may need to meet the demands of their St. Paul and Northwestern trade. This new enterprise on the part of Armour & Co. is, in my opinion, one that will meet with the appreciation of the people of St. Paul and will likewise prove beneficial to the raisers of live stock in the Northwest."

**BIRD PAPER MFG. CO.'S**

CELEBRATED COMPOUND

INSULATING PAPER

For lining Cold Storage and Ice Houses, Refrigerators and Refrigerator Cars.

WATERPROOF, ACID PROOF, ALKALI PROOF.
AIR-TIGHT, ODORLESS, TASTELESS.**BIRD PAPER MFG. Co.**

98 MAIDEN LANE, NEW YORK.

* A public market will be built in Quincy, Ill.

* A two-story store and warehouse to be built at 1103 Oakdale avenue, Chicago, at a cost, it is said, of \$10,000, has been designed for the Schwarzschild & Sulzberger Co.

* The Portland (Ore.) Horse Packing Company, whose plant is located at Linnton, is now said to be doing a thriving business. The company, among whose principal members are Ben Selling and Mr. Mays, some months ago received an order for 5,000 barrels of cured horse meat from dealers in Paris, France, and the contract is now being filled. The plant, which has been idle since last fall, was started up again a few weeks ago, and since that time 800 horses have been slaughtered. Each barrel is labeled "horse meat," and is thoroughly inspected by an inspector sent here from Paris. The Paris purchasers, before making this contract, had the plant thoroughly examined, and satisfied themselves that the products would be up to the required standard. The demand for horse meat in the French capital is said to be increasing. The horses for the Linnton plant are secured from Eastern Oregon, and are what are known as cayuses, worth in the market about \$2.50 apiece, on the average. The horse packing company expects to build up a large business with Paris dealers, and hope also to find a market in Japan and China. Every part of the horse is utilized.

* Swift and Company have brought suit against the Traction Company in Toledo, O., to recover \$300 damages for the death of one

of their horses and the demolition of their wagon. The accident occurred May 1 last, and was due wholly, it is said, to negligence on the part of the Traction Company and its employees.

* The Panhandle Cattle Company has been incorporated, with headquarters at St. Louis, Mo., by J. J. Fisher, J. W. Montague, T. W. Crouch, A. L. Abbott and Joseph Gordon.

* Articles of incorporation have been filed of the Progressive Friends, Omaha, Neb., a corporation formed for interchanging information concerning grain and cattle markets and shipment, and for purposes of stock trading. The capital is placed at \$350,000. The incorporators are James Myers, French W. Metz and Benjamin H. Warren, all of Chicago.

* An agent of the Chicago Nutriment Company visited South Omaha last week in search of a factory site in that city. In case a desirable location can be found the company will erect a plant for the manufacture of meat extracts.

The butchers and grocers of Lowell, Mass., took an outing one day last week at Nantasket, where the waves come tumbling over each other, and where the sea breeze tempers the temperature. The principal item of the menu was clams, and they were cooked in a dozen different ways and much enjoyed. During the day the Lowell grocery and butcher shops were generally closed.

(Continued on page 36.)

TINNOL, a Paste that Sticks.

**NO PEELING OFF.
NO RUST SPOTS ON TIN.
NO DISCOLORING OF LABELS.**

WRITE FOR SAMPLE AND PRICES TO

**THE ARABOL MANUFACTURING CO.,
11 GOLD STREET, NEW YORK.**

**ALL CURED MEATS, SAUSAGES
AND BOILED MEATS****ROLL PARCHMENT PAPER**

Is the attractive feature on the counters of many stores, being used by the leading butchers

ON OUR PREMISES

We have a complete printing department for printing Parchment Paper.

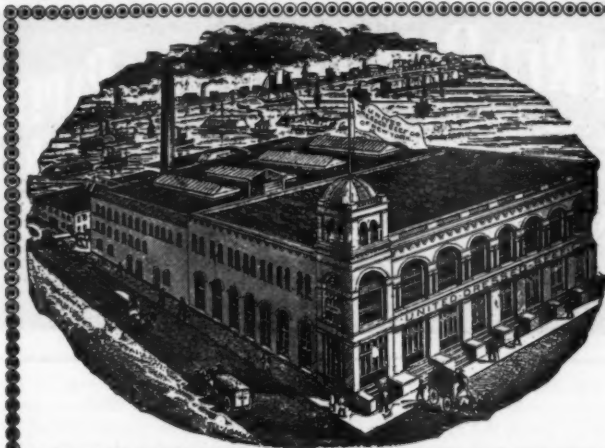
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Should be wrapped in a sheet of Printed Parchment Paper. Leading packers are using our Parchment Paper for wrapping their meats extensively.



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Salesroom Telephone
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OF NEW YORK,

Office Telephone, 303 35th St.

CITY DRESSED BEEF.

PACKERS AND EXPORTERS OF INDIA MEAT AND ALL SALT BEEF
MANUFACTURERS OF

Beef Casings, Dried Blood, Fertilizers, Oleo Oils, Stearine, Prime City Tallow,
Ground Bone, Horns and Cattle Switches, Selected Hides.

HIGHEST PRICES PAID FOR SHOP FAT AND KIDNEY SUET.

43d & 44th STREETS,
FIRST AVE. and EAST RIVER, NEW YORK.

ISAAC BLUMENTHAL, President.
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SWIFT'S..... CHICAGO DRESSED Beef, Mutton, Lamb, Veal, Pork

AND A FULL LINE OF

SWIFT'S FINE PROVISIONS

Can be had at our branch houses in
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G. F. and E. C. SWIFT,
Proprietors.

G. F. & E. C. Swift, 105 Barclay st.
Gansevoort Beef Co., 22 and 24 10th ave.
Washington Market Sheep Co., W. Washington Market.
Swift Provision Co., Cor. 13th st. and 10th ave.
G. F. Swift & Co., Manhattan Market (W. 35th st.).
Swift Sheep & Prov'n Co., 11th ave., 34th and 35th sts.

North River Beef Co., Foot W. 30th st.
Riverside Beef Co., 130th st. and 12th ave.
Swift Bros., Morrisania, 769 and 771 Westchester ave.
Harlem Beef Co., Foot East 127th st.
Murray Hill Beef Co., Foot East 31st st.
Centre Market Beef Co., Cor. Centre and Grand sts.

BROOKLYN.

Swift Brothers, 182 and 184 Fort Greene place.
Fort Greene Sheep Co., 172 Fort Greene place.

Williamsburgh Beef Co., 100 and 102 N. 6th st.
Brooklyn Beef Co., 74 and 76 Atlantic ave.,
Swift Brothers, Wallabout Market.

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Swift and Company, Ninth Street Market, 138 9th st. Swift and Company, Wayne Street Market.

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BEEF AND PORK PACKERS. CURERS AND EXPORTERS OF AND DEALERS IN FINE PROVISIONS. REFINERS OF LARD.
Manufacturers of "White Star" Brand of Lard. "Eagle" Brand of Hams and Breakfast Bacon. "Peerless" Brand Sausages.
BEEF AND PORK PACKED SPECIALLY FOR ALL CLIMATES.
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PACKERS AND JOBBERS OF
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Highest Award, Diploma and Medal, at World's Fair, for Pure Lard, Hams, Bacon, Bbl. Pork, Neutral Lard, Sausages.

PURE LEAF LARD, 2, 5, 10-LB. PAUL TUBS, TIERCES. 33 & 34 N. MARKET STREET, BOSTON.
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PACKING HOUSE, - SOMERVILLE, MASS.

Try their North Star Brand for something extra choice. Sure to please.

William Ottmann & Co.,

PROVISIONS,
POULTRY
AND GAME,
BUTCHERS, PACKERS AND EXPORTERS,
FULTON MARKET NEW YORK.

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Abattoir and Salesroom:
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Hudson Ave.,
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MANUFACTURERS OF
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HAMS AND BACON
ARE THE FINEST IN THE WORLD.

Telephone 282 Franklin. Their process of preparing and curing gives that delicate flavor and beautiful color for which they are noted, and adapts them to any climate or season of the year.
OUR KETTLE RENDERED LEAF LARD CANNOT BE EXCELLED. . . . 20 Harrison Street, New York.

HALSTEAD & CO.,

Packers and Provision Dealers.
200 FORSYTH ST., NEW YORK.
Registered Cable Address "Roomfull," New York
See Coupon on Page 26.

WANT AND FOR SALE ADS, can be found on PAGE 45.

ICE AND REFRIGERATION.

Those interested in this subject should not forget to look also at Packers' and Slaughterers' Notes, and other trade news columns in this paper.

Employers in want of help, and employees in search of positions, and such wanting to dispose of machinery or desiring to purchase same should look at our **WANT AND FOR SALE COLUMN** on page 45.

Persons in need of an Ice Machine or Refrigerating Appliances should make their wants known to us. Their publication in this column which is perused by the leading ice machine manufacturers in the country would bring scores of replies.

—R. F. Learned and C. Montgomery are interested in the proposed ice factory for Natchez, Miss.

—Peter M. Kling, Rudolph Menkel and Gustav A. Senn have incorporated the Ideal Brewery at St. Louis, Mo., with a capital stock of \$30,000.

—T. J. Callett, of Phillipsburg, Pa., is to be president; Isaac Ratonsky, of Phillipsburg, Pa., and Carl Wilbawl, of Columbus, Ga., are interested in the Wilmington Brewing Association, which will be organized at Wilmington, N. C., to erect a brewery of 10,000 barrels annual capacity, an ice factory of 13 tons daily capacity and a cold storage plant. For particulars address Isaac Ratonsky of the company, who is on the ground attending to the plant.

—John Griffin, eighteen years of age, a laborer employed at the Buffalo (N. Y.) Cold Storage Company's warehouse in that city, was frozen to death by ammonia Friday evening of last week.

—The North American Provision Company, 30-31 Wheeler Building, Chicago, Ill., are contemplating equipping their plant with an 80 or 100 ton ice machine. They are desirous of securing estimates.

—The Hancock Ice Company, 118 North Twelfth street, Philadelphia, will erect a new ice storage house at Green Lane, Montgomery County, Pa. When completed it will have a capacity of about 30,000 tons. The proposed cost of the building will be in the neighborhood of \$20,000.

—Architect Buckham, of Burlington, has completed the plans for the new State asylum buildings at Waterbury, Vt., for which the Legislature appropriated \$25,000. The plans include structures for a cold storage plant.

—It is reported that the Mississippi Cotton Oil Company, within the next few months, will erect an immense ice plant in Columbus, Miss., and that they purpose introducing the latest machinery and methods for the manufacture of the congealed commodity.

"The best evidence one can give of Alaska's climate," says a paper published in that far-off country, "is the fact that the heat of our summer is so great that it has been necessary to manufacture artificial ice here. The Alaska Meat Company, of Juneau, has

NEPONSET RED ROPE INSULATING PAPER
FOR LINING
Cold Storage Houses **Refrigerators** **Cars, Etc.**

WATERPROOF, AIR TIGHT, CLEAN, A HIGH NON-CONDUCTOR AND ABSOLUTELY ODORLESS.

F. W. BIRD & SON
EAST WALPOLE, MASS.

SAMPLES AND PRICES PARTICULARLY SENT FREE ON APPLICATION TO
THIS PAPER IS ACCEPTED BY EXPERTS AS THE STANDARD OF RECEPTION

just installed a cold storage plant which has a capacity of 1½ tons of ice a day." After giving its readers this bit of news, the aforesaid paper adds: "We hope this will catch the eye of some of our friends who think we are filled with a rude barbaric contempt for civilized science, and that our political aspirations are limited to the free coinage of salmon bellies and an export bounty on ice."

FOREIGN NOTES OF INTEREST.

The William Robinson (Manchester) (Limited) Company has been registered, with a capital of £2,000 in £10 shares, to acquire the business carried on at Camp street, Deansgate, Manchester, by John and Solomon Robinson, and to carry on the business of oil, fat, soap and glycerine manufacturers, refiners, and merchants.

The National Oil Company, Limited, has been registered with a capital of £10,000 in £10 shares, to buy, manufacture, prepare and sell oleo and other oils, lards, stearine, tallow, fats, bones, horns, hoofs, hides, fertilizers, dead meats, etc. The subscribers are Messrs. A. Clark, 64 West Smithfield, E. C., accountant; L. J. Woodruff, 64 West Smithfield, E. C., secretary; J. M. Johnstone, 42 Half Moon street, W., solicitor; A. Cohn, 64 West Smithfield, E. C., meat salesman; G. A. F. Bertie, 215 Essex road, Canonbury, clerk; A. Robinson, 8 Kimberley road, Stockwell, clerk; S. Hockett, 13 Belitha Villas, Barnsbury, clerk. The number of directors is not to be less than two nor more than seven. The first are Messrs. E. Morris, G. F. Swift, L. J. Woodruff, and A. Clark; remuneration as fixed by the company.

The principal exports from Denmark to England during 1896 were, as usual, says the annual consular report just issued, of agricultural produce. In rough figures, 129,000,000 pounds of butter and 157,000,000 pounds of pork and bacon, and 9,180,000 score of eggs. These figures show an increase of 3,520,000 pounds over those in 1895, but the increase in imports was 1,920,000 pounds, and

home consumption was about normal, so that the increase in produce from 1895 amounted to 1,600,000 pounds. The production of bacon increased considerably in 1896, and 1,200,000 pigs were killed for this trade, the increase amounting to over 25 per cent. on that of 1895. Taking the two years 1895 and 1896, an increase in production of bacon has been as much as 70 per cent. The export of eggs shows an increase of about 2,000,000 score. The warm summer was unlucky for exporters and in many cases brought a loss, the eggs arriving in a spoiled condition.—London Grocers' Journal.

LOOK FOR THE RED SEAL.

The Preservaline Manufacturing Company, in order to protect purchasers of its celebrated Preservaline, now on the market for over twenty years, have adopted as a precautionary measure, a handsome red seal which is now put on each and every package of the genuine goods. Buyers will thus be able to prevent being imposed upon, and every one ordering Preservaline should see that this red seal is on the cover of the package—failing which, they can be sure they are not getting goods shipped out in original packages by the company.

The extensive sale of Preservaline and its great success have caused it to be largely imitated, which is always the case with a successful article, and no higher compliment could be paid to the value of Preservaline than to say parties have found it worth imitating. To prevent, however, those who desire the genuine Preservaline, from being imposed upon, The Preservaline Manufacturing Company, patentees and sole manufacturers of the celebrated Preservaline, have found it necessary to take some means to protect their customers, and have adopted the red seal to do this.

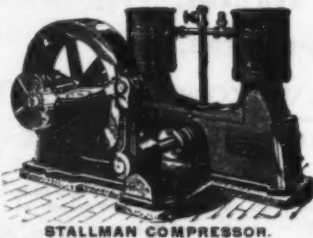
The increase in the Pacific coast business done by the company has compelled them to seek larger quarters, and they have removed their Pacific coast branch to 779 Mission street, San Francisco, Cal., where full stocks are kept to supply the Pacific coast trade.***

REFRIGERATING • MACHINES

For **PACKERS, BUTCHERS, COLD STORAGE, WAREHOUSES, ETC.**

A First-Class Plant Pays.

DIRECT EXPANSION. BRINE STORAGE, and BRINE CIRCULATING SYSTEMS.



STALLMAN COMPRESSOR.

We are the Sole Manufacturers of the **STALLMAN COMPRESSOR**

For Simplicity, Durability, Efficiency and Economy in operation, **THEY HAVE NO EQUAL.**

OUR SPECIALTY:
2, 4, and 6-TON MACHINES FOR SMALL PLANTS.

For Power we furnish **ELECTRIC MOTORS, GAS, GASOLINE or STEAM ENGINES.** Estimates and Descriptive Circulars cheerfully furnished.

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THE
DE LA VERGNE REFRIGERATING MACHINE CO.
Manufacturers of
Refrigerating and Ice-Making Machines
AND ANHYDROUS AMMONIA.

Read the following AWARD from the DIPLOMA received by us from THE WORLD'S COLUMBIAN EXPOSITION.

AWARD.

For production of Anhydrous Ammonia Compressors for refrigerating purposes, of First-Class Efficiency, Durability, Design, Workmanship and Finish, having a pair of vertical double-acting compressing cylinders, operating from two cranks driven by a horizontal double-acting steam engine, occupying a minimum floor space for given capacity, with automatic devices for circulating oil through the compressing cylinders for the purpose of securing perfect displacement of gas, of absorbing the heat of compression so as to require no water-jackets.

For first-class design of the ammonia condensing apparatus, involving the use of a special line of pipe-fittings and valves, of superior strength and completeness; for an excellent arrangement of cooling-water distributing surfaces and liquid ammonia collecting pipes, and complete provision for conveniently operating, cleaning and repairing all parts of the system so as to secure steady action under the most economical conditions.

For successful application of the principles of artificial refrigeration, by the direct expansion of ammonia.

For a complete system of constructing Refrigerating Plants and manufacturing specially designed appliances therefor, all of which are undoubtedly the most elaborate and complete fittings for this purpose yet introduced. The exhibitors adhere to the practice of making all pipe joints with screw threads, sealed with a special solder, which is undoubtedly the most secure method of making joints in ammonia work.

Approved.—W. A. JAMES,
Vice-President Departmental Com.

(Signed) J. E. DENTON,
Individual Judge.

Approved.—JOHN BOYD THACHER,
N. H. Chairman Executive
Committee on Awards.

WE BUILD THE MOST SUBSTANTIAL AND DURABLE MACHINES AND PLANTS FOR REFRIGERATION AND ICE-MAKING MADE IN THE WORLD. THE RECORD MADE BY OUR PLANTS IN OPERATION IS A PROOF OF THIS FACT.

WE MAKE NO GUARANTEES WE CANNOT FULFILL.

MAIN OFFICE AND WORKS: FOOT OF EAST 138TH STREET, NEW YORK.

BRANCH OFFICES.

PHILADELPHIA, Pa., Girard Building, cor. Broad and Chestnut Sts.
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CHICAGO, Ill., 507-508 Security Building, Madison St. and 5th Ave.

NEW ORLEANS, La., 712 Hennen Building, Cor. Carondelet and Common Sts.
CINCINNATI, O., 811 Neave Building, Fourth and Race Streets.
BOSTON, Mass., Tremont Building

Smith's Patent Celebrated Buffalo Choppers with Self-Mixers, used the World over.



BEST and CHEAPEST
HAND CHOPPER

IN THE WORLD.

Chops and mixes 30 lbs. fine
in 15 minutes. Runs easy
and is Strong and Durable.

Send for Lowest Prices.



BUFFALO SPICE MILL

Best Mill ever put on the Market.

It pays to grind your own spice, then
you know it is pure.

Buffalo Chopper, Chops, Stirs and
Mixes at one time.

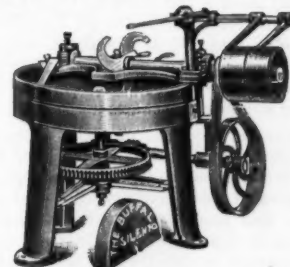


Best Lard Mixer ever Invented.

(Patent Applied for.)

75 to 800 Gallons Capacity.

MODERATE PRICES.



Latest Silent Cutter.

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PRODUCE, Etc., Etc.

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DATES OF JAN. 25, 1896, AND JAN. 9,
1897. WE WOULD BE OBLIGED IF
OUR FRIENDS WOULD SEND US
COPIES OF THOSE DATES, AND WE
WILL CREDIT THEIR SUBSCRIPTION
ACCOUNT ACCORDINGLY.



My ad. went in this paper, and
I found he told no lies,
Business soon was booming, when I
Began to advertise.

A copy of our PORK PACKERS' HAND-
BOOK AND DIRECTORY is a necessity.
For particulars, see page 41.

Directory of Cotton Oil Mills

ALSO OF

BUTTERINE FACTORIES IN EUROPE

APPEARS IN OUR

YELLOW BOOK

THE MANUFACTURE OF

COTTON SEED OIL.

Send Check or Postal Order for \$3.25.

The National Provisioner Publishing Co.,

234-256 Pearl Street.

NEW YORK.

11 Bialto Building,

CHICAGO.

PACKING HOUSE NOTES.

(Continued from page 32.)

The Stockton (Cal.) Journeymen Butchers' Protective and Benevolent Association recently installed the following officers: George Simpson, president; G. Houghland, past president; Nick Drascovich, vice-president; Fred Sivers, treasurer; George Snow, financial secretary; William Comfort, recording secretary; Joe Yettner, marshal; J. Northgrave, conductor; John Harrelson, outside guard; Walter Clark, inside guard. After the ceremonies had been completed a banquet was served, while an orchestra played several selections.

* The increase in the Pacific coast business of the Preservaline Manufacturing Company of New York, has necessitated their securing larger quarters in San Francisco. Until recently they were located at 45 Second street. Their office now is at 779 Mission street.

* The Wasatch Creamery Co. has filed articles of incorporation. The object of the company is to carry on and conduct the business of butter and cheese, and the raising, buying, selling and packing of pork. The principal place of business will be at Heber City, Wasatch County, Utah. The capitalization is fixed at \$7,000. Joseph Hatch is president of the new company; Robert Duke, secretary, and Ludwig Anderson, treasurer. The board of directors comprises Joseph Hatch, James W. Clyde, John Carlisle, William M. Ryan and Henry M. Aird.

AMONG THE RETAILERS.

The Amalgamated Meat Cutters' and Butcher Workmen's Union of Utica, N. Y., held their second annual picnic at Utica Park Thursday of last week. The outing was a perfect success in every respect, both the attendance and receipts being large.

Ingalsbee & Co., Ithaca, N. Y., sold their meat market last week to Fred Van Buskirk, and within thirty minutes Van Buskirk had resold it to W. J. Marshall, who owns the only other market in that city. The stock was immediately transferred, leaving Ithaca with only one meat market.

The big barbecue of the Worcester (Mass.) butchers was held Wednesday of last week, as briefly reported in our last issue, and it was a great event. Twenty thousand pounds of beef and lamb were converted into delicious morsels and were eaten with a relish. The big parade marshalled by Maj. Harry B. Fairbanks, started the day's festivities about 9 o'clock in the morning. Lack of space prevents our mentioning all the features, but the following will be of interest: Manager Rickers for John P. Squire & Co., rode at the head of his men, in company with his wife and two lady employes of the office, in a tandem. The Cudahy Packing Co. had their team guarded by four mounted men in red and blue and black and red caps, and the dash of color was effective. The G. H. Ham-

mond Co., G. F. Swift & Co. and the Armour Co. were also represented in the gorgeous parade. Taken altogether, it was a great day for the Worcester butchers and will not soon be forgotten.

The movement to secure the universal consent of the provision dealers of Haverhill, Mass., to close at 1 o'clock Thursday afternoons seems not to have been an entire success. All the firms except three or four consented, but at least two of the largest dealers in the city practically refused to sign the agreement. The dealers say there is so little business done Thursdays that no great loss will result by their closing.

The butchers of Attleboro, Mass., will hold their fifth annual excursion to Newport, R. I., on Thursday, Aug. 12.

The butchers of Braddock, Pa., have organized a butchers' protective association. The officers are president, George Krainer; secretary, George Krohe; treasurer, John Krohe.

The annual barbecue of the Butchers' and Marketmen's Association of Cleveland, Ohio, will be held on Aug. 11.

NEW MARKETS.

William Steelinger, Edwardsville, Ill.

Oscar Conklin and Fred Felter, Rockland Lake, N. Y.

Frank Stone, Dover, N. H.

Edward W. Smedley has opened a meat and provision store in Chester, Pa., at 811 Edgmont avenue.

Work is under way on the new meat market on Broad street, in Augusta, Ga., to be known as the Palace Meat Market. Bryan Lawrence, the owner, is going to fit it up in such a way that it will not belie its name.

William Hoover, Crawfordsville, Ind., who has conducted a small fish stand, intends to branch out, and will handle in the future, in addition to fish, poultry, oysters and game.

W. G. & A. J. Pace, Macomb, Ill., have added a meat market to their grocery business.

Frank Anderson, Berlin, N. H.

Ed. Oliver, Havelock, Neb.

Dow & Chilson, Pavillion, N. Y.

FIRES AND CASUALTIES.

George Young & Son's slaughter house in Wausau, Wis., was destroyed by fire, causing a loss of \$3,500.

Frank Payton's butcher shop in Whittier, Cal., was broken into last week for the purpose of robbery, the party lighting a lamp to find the money. The money was not there, and the thief left, not putting out the lamp. The result was an explosion, the table and refrigerator catching fire. Luckily the blaze was discovered and the fire put out before much damage was done.

A small fire occurred last week at the Yeager meat market in Richmond, Ind. The loss consisted of an old overcoat, not especially needed just now.

ANSWERS TO CORRESPONDENTS.

We gladly and as promptly as possible answer all reasonable questions in this column sent to us by our SUBSCRIBERS or ADVERTISERS.

Answers desired by mail should be accompanied by a stamped, addressed envelope.

Persons desiring not to be known as making an inquiry should add a *nom de plume* to their questions. By so doing they will avoid identification in this column. The correct name and address should, however, for the publisher's satisfaction, accompany each request for information.

J. B. W., CINCINNATI.—The quantity of lard imported by Germany from the United States last year was 84,643 tons.

B. O., JERSEY CITY.—It is not necessary to adopt the course you suggest. It would be wiser to simply let the matter rest.

B. Y. F., PHILADELPHIA.—The first importation of United States caviar into Hamburg, Germany, was made twenty-nine years ago (in 1867). The shipment consisted of from twenty to thirty kegs of 135 pounds each, the price paid in America by the importers being 2 cents per pound. The caviar came from the Delaware River, from which locality comes 50 per cent. of all the United States caviar imported into the city named. Nearly half of the importations of United States caviar is consumed in the cheap restaurants of Berlin; three-fourths of the other half goes to Austria, and the balance to Italy and other European countries. The importations of caviar are increasing, because the article commands a better price in Germany than in the United States, and because the supplies of the Elbe and Vistula are decreasing each year. In the opinion of the American Consul at Hamburg, there exists in Germany a growing and profitable market for caviar, as well as in other countries of Europe. The Consul says: "With a view to increasing the popularity of United States caviar in this and other European markets, which an effort should be made to win, it is respectfully suggested to our dealers and exporters that not less than 14 pounds of salt should be used in preserving 100 pounds of roe, to which about 2 pounds of preservative salt should be added. Under such treatment it is confidently claimed that the caviar could not possibly spoil."

The retailer needs "The National Provisioner" in his business. It gives him the latest news of his association and other associations. It keeps him informed of doings in butchery. Its regular publication of sausage recipes, and other matters of importance to him, makes it an absolute necessity if he would be a nineteenth century butcher for him to have it. The subscription price is \$4 per year.

Advertising is to business what steam is to machinery—the grand propelling power.—Macaulay.

DO YOU SMOKE MEAT?**DOES YOUR MEAT MOULD?****DO SKIPPERS TROUBLE YOU?**

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NEW YORK CITY AND VICINITY.

Employers in want of help, and employees in search of positions, and such wanting to dispose of machinery or desiring to purchase same should look at our WANT AND FOR SALE COLUMN on page 46.

** Charles B. Butt, who for many years was in the wholesale provision business with his brother at Steuben street, Brooklyn, has recently opened the premises lately occupied by A. V. Alford & Co. at 278 Flushing avenue, near the Wallabout Market, and intends to handle, besides all kinds of smoked meats and provisions, salt and salt fish, etc., and solicits a share of the patronage of the butchers, grocers and others.

** The basement of the Armour Packing Company of North Sixth street, Brooklyn, has recently undergone extensive alterations. A large cooler has been added, which will hold some 900 head of small stock, and a large provision packing room. Mr. Washburn is in charge of the provision department and Charles Herrschaft that of the small stock.

** P. W. Brett was installed as bookkeeper at the Pacific Beef Company, at North Sixth street, Brooklyn, last week, having previously been with the Hoboken Beef Company, Hoboken, another branch of the same firm.

** The United Butcher Guard, of Brooklyn, under the command of Captain Jacob Albert, will hold their twenty-seventh annual target excursion on Monday, August 9, 1897, at Koenig's Glendale Schuetzen Park, Long Island. The committee of arrangements include Gus Wuest, Charles Schlecht, H. Benninger, G. Diefenbach, J. E. Reisert, Ph. Bender.

** White Plains, N. Y., July 26.—William Ferguson, a butcher, aged 28, single, committed suicide by taking laudanum some time early this morning. He had been in ill health and was despondent.

** The second grand annual trolley ride and outing of the Wallabout Market employees will be held at B. Koenig's Glendale Schuetzen Park, Glendale, L. I., Saturday afternoon, September 4. Cars leave Horse-shoe Hotel, Flushing avenue and Hall street, at 4.30 sharp. Music by the famous Wallabout band. The tickets, including refreshments, are \$2. The officers of the association are John Moore, president; George Moore, first vice-president; James Mackey, second vice-president; Al Strachle, secretary; M. Shen, financial secretary; Joseph A. Loew, recording secretary; Max Keller, treasurer; Henry Klein, captain of police; John Sullivan, sergeant-at-arms; W. H. Beebe, Jr., assistant sergeant-at-arms. The committee of arrangements comprises Herman Spamer, chairman; Peter Becker, Charles Spamer, Otto Weimann, T. Clinch, William Brummer, Eugene Gill, John Waldeck, C. Bock, J. Sheehan, W. Eybel and John Wackerhans.

** The Board of Health meat inspectors during the past week have condemned 2 carcasses of beef (1,300 lb), 7 calves (280 lb), 6 carcasses veal (900 lb), 2 carcasses sheep (200 lb), 3 pigs (85 lb), 25 barrels poultry (5,000 lb).

** E. Marscheider has fitted up a complete market for P. Eppling, on Madison avenue, between 118th and 119th streets, New York City.

** Frederick Bowley, the well-known pork packer, of Astoria, L. I., is an Alderman-at-large for Long Island City, which corporation, in this case, has recognized good judgment in its selection of a man of capability, well qualified for the duties attendant upon such an office. He belongs to the anti-Gleason party, and has consequently opposed the Mayor in every effort he has made to improve the city from the standpoint of the

"big fellow" and his friends. He has helped to save the city from a great debt, and in consequence the taxpayers owe him a debt of gratitude.

** Charles Franken & Bro., of 437 Produce Exchange and 102 Pearl street, have purchased the scale business of E. Toffler at 733 First avenue.

** The wholesale butcher trade is experiencing with other lines of business the advent of prosperity. R. A. Parker, local manager for G. F. & E. C. Swift, at 105 Barclay street, was interviewed on the business situation and spoke of the bright prospects. W. H. Noyes, the branch manager for the same concern, speaking of the business of his company, had this to say: "Business certainly is better than it was last year, and we have sold much more meat. Of course, it is understood generally that this weather which we are now having is not the kind to increase our business. Backward seasons mean a big loss. The large hotels and summer resorts are some of our best customers, and if they do not have the guests, of course there is no necessity for the houses ordering meats. It is a singular thing, and one which we always have noticed, that whenever there is a backward season, there is no call for meats. Some persons may imagine that meat will be consumed anyhow, but that is not the case. The increase in business I attribute to the better times. More meat is being consumed and it is fair to assume that the workingman is getting his share of it. It follows, then, that he must be getting better wages, and if not that he was out of work before and now has a job."

** The Nonpareil Meat Company has opened a first-class meat market at 233 Jackson avenue, near Eleventh street, in Long Island City. Alex. Weber is the proprietor and the store there is a branch of 2056 First avenue, New York. Mr. Weber says it is his intention to keep the choicest meats and sell at the lowest prices.

** The third annual picnic and games of the Richard Webber Mutual Benefit Society will be held at Sulzer's Harlem River Park Casino and Gardens, 127th street and Second avenue, on Wednesday next, August 4, and promises to be a most enjoyable event. Tickets, admitting gentleman and ladies, have been placed at 50 cents. The games will start at 2 P. M., dancing at 3. The committee of arrangements comprises H. B. Shipman, chairman; J. Berrian, A. P. Schumacher, Wm. Webber, H. L. Maus, W. O. Starr and T. J. Metz.

NEW YORK PRODUCE EXCHANGE NOTES.

On Wednesday two membership tickets were sold at auction in the Exchange reading room at \$195 and \$200 respectively.

The following gentlemen were proposed for membership: I. H. Lonsbury, by F. E. Pinto and John McNeil of the Columbia Engineering Works by W. E. Butler.

The following gentlemen were elected members: F. H. Brennan, with the N. R. Fairbank Co.; Gaston H. Fitter, with Fitter & Reich; and John Von Glahn, of the Von Glahn Bros.

Among the visitors whom we noticed on the floor during the week were the following: Edward Pratt, T. D. O'Brien, D. A. Noyes, C. H. Gibson, R. R. Magnus, Chicago; Wm. Ross, Philadelphia; I. S. Price, Houston, Tex.; D. Oliver, Joliet, Ill.; W. H. Stillman, Baltimore; Geo. Ripley, Duluth.

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TALLOW, SOAP, GLUE, FERTILIZER AND COTTON OIL TRADE NOTES.

CORRESPONDENTS, SUBSCRIBERS AND OTHERS SENDING ITEMS FOR THIS COLUMN SHOULD MAIL THEM SO AS TO REACH THE EDITOR NOT LATER THAN THURSDAY EVENING.

Tallow-renderers, soap makers, glue manufacturers, fertilizer manufacturers, and cotton oil manufacturers would do well to make known their wants in this column, which would result in their being placed in immediate correspondence with the leading firms interested in these lines who carefully peruse these notes.

Nine-tenths of the cottonseed oil received in Marseilles, France, during the year 1896, was from the United States.

The Louisville (Ky.) Soap Co. has been reorganized under an entirely new management which went into effect July 1. William A. Baker is the president and J. A. Ferguson secretary and treasurer of the company.

G. Hasley & Sons are building a large addition to their soap factory on Madison avenue, Allegheny, Pa.

The soap makers of San Francisco, Cal., held a meeting last week looking toward inaugurating a movement to supply their market with that commodity and save the State of California the \$500,000 which the local soap makers say is paid annually to Eastern manufacturers.

The erection of a 20-ton cottonseed oil mill is under way at Lavonia, Ga.

The Kaphan Soap Company, Nashville, Tenn., has been incorporated by Charles H. Butler, J. T. Kaphan, R. G. Fehr, John G. Pfeffer and J. S. Glenn.

The Union Glue Company's property, near California City, that State, was sold by the sheriff. J. R. Morrison bought the plant for \$1,265.

The erection of a fertilizer factory is contemplated by Lee Ashcraft and associates, of Florence, Ala.

Daniel W. Wright, of Little Rock, Ark., is president; J. W. Corcoran, vice-president; W. H. Langford, secretary, and John R. Fordyce, of St. Louis, treasurer and manager of a company which has been organized to erect a cottonseed oil mill at Pine Bluff, Ark. It is reported that a 60-ton plant to cost \$60,000 will be erected.

The erection of a cottonseed oil mill is contemplated by Henry Marx, of Gretna, La.

Frank E. Taylor, Samuel Lord and Herman R. Luhn have incorporated the Ashpoo Fertilizer Co., at Charleston, S. C., with a capital stock of \$100,000.

The capacity of the mill of the Williamston Oil and Fertilizer Co., of Williamston, S. C., will be increased one-third and other improvements will be made.

The road to success is through printers' ink. Hundreds and thousands of people may read your advertisements while you are attending to your business; many perhaps read it while you are asleep.—P. T. Barnum.

TO BUTCHERS.

Butchers cannot fail to be interested in Page's Quotations for Calf Skins, which appear on page 8.

P. DONAHUE & SON,

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COTTONSEED OIL SUPPLEMENTARY REPORT.

(Continued from page 18.)

Thursday and Friday's markets were firm and fairly active, the general controlling conditions outlined in our review on page 18 remaining in the main unchanged. Stocks are rapidly diminishing at this market and the developments which the near future will witness look decidedly favorable to holders. That stocks of vegetable oils are scarce in France is assured, requirements in that quarter for the near future therefore cannot be long deferred, with especial reference to soap making. The price of Egyptian seed has been marked up in England, while feeding stuffs and vegetable oils are correspondingly strong. The higher grades of cotton oil here are firm and offerings are light at the moment, while it is considered by some members of the trade that the large cotton crop which is soon due to move may be somewhat of a check on the volume of trade. The following sales are reported for the week: 2,500 barrels of off-summer yellow at 24c.; 1,250 barrels prime summer yellow at 25 $\frac{1}{2}$ c.; and 200 barrels of butter oil at 28c., all from New Orleans, while the sales from this market were 550 barrels off-summer yellow at 25c.; 750 barrels prime yellow, 25 $\frac{1}{2}$ c.; 450 barrels prime winter, 30 $\frac{1}{2}$ c.; and 1,500 barrels butter oil at 30 $\frac{3}{4}$ c. No sales of white oil are reported. Latest advices from Liverpool quote refined firm at 16s.

Cottonseed, crude	Nominal
loose, f.o.b. mills	16 a 17
Summer yellow, prime	25 a 26
offgrade	24 $\frac{1}{2}$ a 25
Yellow, butter grades	30 a 32
White, prime	27 a 28
Yellow, Winter	30 a 31

CAKE AND MEAL.

In New Orleans cottonseed products remain quiet and steady, with quotations not materially changed. Cottonseed meal jobbing at depot, \$18.50 to \$18.75 per short ton, and \$20 to \$20.25 per long ton for export f. o. b.; oil ca.-e, \$20 to \$20.25 per long ton f. o. b.

TIPS ON THE MARKETS.

W. Thos. Nash says: "I believe in buying on every break; the situation looks strong to me; the break Wednesday was only natural after the sharp advance."

Treadwell & Simpson say: "There is no speculative trading in provisions now, the cash demand being almost equal to the supply." They believe in a steady advance in consequence.

Mr. N. J. Weil, of W. E. Webb & Co., says of provisions: "It is surprising how small the demand is for ribs, while demand for other cuts is large. Bellies are commanding a larger premium over ribs than any time this season and yet the trade is taking them and leaving ribs alone. Extra clears and extra ribs moving freely and are much nearer the price of ribs; demand for picnics good, also for heavy hams; skin hams, light hams slow sale; market should have some further reaction, and on any good break would consider provisions a purchase."

RECENT PATENTS AND TRADE-MARKS.

587,139.—Apparatus for Extracting Oil. William Sager, Sr.; Alfred J. Sager and William Sager, Jr., Colne, Eng.

TRADE-MARKS.

30,433.—Canned Meats, Fruits and Dairy Products, such as Butter and Cheese. Henry P. Somes, Norwich, Conn. Essential feature, the compound word "Del-Hoff."

OUR COMMERCE WITH HAWAII.

The following excerpts are taken from information given "The National Provisioner" by the U. S. Department of Agriculture, regarding Hawaiian commerce from 1887 to 1897, which in view of the talked-of annexation by this country of those Pacific isles, will be of interest:

Hides and skins constitute the fourth item in point of value among the commodities received from (imported into this country) the Hawaiian Islands. During the past decade, however, the importations have suffered a rather pronounced falling off, the average value per annum of the shipments received in 1892-1896 amounting to only \$56,278, as compared with \$92,546 in 1887-1891. The value of the hides and skins, other than furs, imported into the United States from Hawaii during each fiscal year from 1887 to 1896, inclusive, was as follows:

Years ended June 30—	Value.
1887	\$128,221
1888	92,537
1889	95,576
1890	75,884
1891	70,509
Annual average, 1887-1891	\$92,546
1892	\$71,148
1893	58,421
1894	38,322
1895	48,383
1896	65,104

Annual average, 1892-1896.....\$56,278

Next to breadstuffs the most important category among our agricultural exports to Hawaii is that comprising the several meat products. The average yearly value of the meat products of all kinds shipped to the islands during 1887-1891 was \$102,095. In 1892-1896 the average value per annum placed upon these exports was not quite so high, reaching only \$99,942. Lard is the leading item of the group.

In 1887-1891 our average shipments per annum of this article amounted to 278,482 pounds, and in 1892-1896 to 311,228 pounds, showing a considerable gain. In the case of hams, there was a slight falling off during the decade, the average yearly export for 1892-1896 amounting to only 177,930 pounds as compared with 184,777 pounds for 1887-1891. Bacon, on the other hand, made a small gain, the average shipment per annum increasing from 53,396 pounds in 1887-1891 to 54,811 pounds in 1892-1896. Our exports

of canned beef to Hawaii experienced a remarkable growth during the decade, the quantity shipped per annum in 1892-1896 averaging as high as 164,750 pounds, whereas in 1887-1891 it was only 68,678 pounds.

In the following table complete returns are given as to the value of lard, hams, bacon and canned beef, and also as to the value of the total meat products, exported from the United States to the Hawaiian Islands during the fiscal year ending June 30, 1896:

Canned beef	\$35,808
Bacon	6,125
Hams	25,333
Lard	26,803
Other meat products	11,741

Total meat products\$105,810

As regards the exportation of live stock from the United States to the Hawaiian Islands, the past decade has witnessed a rather marked falling off. The total value of the several species exported during 1887-1891 amounted to \$119,150 per annum, while in 1892-1896 it was only \$43,764 per annum. Mules, horses, and hogs are the principal kinds of stock sent to Hawaii. Cattle are shipped in smaller quantities and sheep only occasionally. In the exports of each of these varieties there has been a large decrease during the past ten years, as will be seen from the annual returns presented in the following table:

Years ended June 30.	Cattle.	Hogs.	Sheep.
1887	\$10,767	\$53,295	\$..
1888	3,195	36,712	..
1889	7,360	30,271	1,336
1890	3,607	29,354	500
1891	13,072	32,940	306
Annual average, 1887-1891	7,600	36,514	428
1892	2,255	29,517	..
1893	1,101	14,275	170
1894	195	4,498	250
1895	6,120	8,971	162
1896	840	3,703	..
annual average, 1892-1896	2,102	12,193	116

In our shipments of dairy products to Hawaii there has also been a decline during the past ten years.

The exports of butter, which amounted to 140,639 pounds per annum in 1887-1891, declined to 123,486 pounds per annum in 1892-1896. Meanwhile the cheese shipments fell from 96,704 pounds to 85,221 pounds per annum. Annual returns of exportation of butter and cheese are presented in the following

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Live Hogs.

Which is the Most Profitable and Satisfactory to the Farmer?—A few Hints Regarding the Handling of Hogs in Hot Weather.—Unloading and Weighing: Hints to Buyers.—Dockages.—Inspection.—Figures for the Country Farmer.—To Avoid Sour Meats.—Cost of Handling Hogs in Yards.—Feeding.

Hog Killing.

Driving to Pens.—The Shackler.—Necessity of a Foreman.—Stripping Small Guts.—How to Avoid Destroying Them.—Scarring Guts.—To Avoid Destroying Large Guts.—Expense of Killing.—Men Required for Killing Gang.—The Work of Each Man on the Killing Gang.—Avoid Shoulder Sticking.—Temperature of Water in Scalding Tub.—Hog Scrapers.—The Scientific Portion of Hog Slaughtering.—The Expert Gutter.—The Shaver.—The Gut Bench.—Casings and Guts.—"Dark" and "Or" Color Lard Due to Careless Washing of Guts.—Do not Let Your Fat Go into the Sewer.—Hog Stomachs.—Leaf Lard.—Tongues.—How to Treat Them.—Temperature.—Dry Shaving.—Proper Handling.—After Effects of Poor Handling.—Shrinkage from Live to Dressed Weights.—Hair, Bristles, etc.—Carelessness of Killing Gang.—How to Avoid Losses.—When Water Should Be Used.

Pepain Manufacture.

What is Pepain.—Method of Preparation.—Straining and Filtering of Liquid.—Crude Pepain.—Purified Pepain.—General Treatment and Drying Process.

The Chill Room.

When to Put in.—Temperature of Room and Hogs.—Reduction of Temperature.—Lowest Temperature Permissible.—How Long to Hang Therein.—Watching the Temperatures.—Proper Insulation of Chillrooms.—Artificial Refrigeration Prevents Sour Meats.—Where to Place Brine Tanks.—How to Run the Pipes.—Necessity of Reliable Men in Taking Temperatures.—Closest Attention Necessary.—Necessity of Competent Men.—Advantages of Thorough Mechanism.—Who Should Attend to Insulation.

Cutting of Hogs.

When to Commence Cutting.—Size of Gang.—The Cutting Gang.—The Chopper.—Instruments in Use.—Side Meat Trimmers.—Ribbers.—Backbone Sawers.—Shoulder Trimmers.—Blade Pullers.—Where to Chop the Backbone Out.—Other Men and Boys Necessary.—Cost of Cutting.—Domestic Cuts.—Export Cuts.—Loin.—Wrapping.—Cold Storage.—Treatment During Summer Season.—No Lean Meat to Tanks.—Spareribs.—Backbones, Neckbones, Hocks; What to do With Them.—Short-rib Middle (illustrated).—How to Cut.—English Short-rib Middle (illustrated and explained).—Long Clear Middle (illustrated and explained).—Extra Long Clear Middle (illustrated and explained).—Long-rib Middle (illustrated and explained).—Gum-bierland Middle (illustrated and explained).—Yorkshire Middle (illustrated and explained).—Staffordshire Middle (illustrated and explained).—Dublin Middle.—Stratford Middle.—Birmingham Middle (illustrated and explained).—Short, Clear Sides (illustrated and explained).—Extra Short, Clear Sides (illustrated and explained).—Wiltshire Sides (illustrated and explained).—South Staffordshire Sides (illustrated and explained).—Clear Belly (illustrated and explained).—Rib Belly (illustrated and explained).—Welsh Sides.—Irish-cut Sides.—South Staffordshire Sides.—Clear Bellies.—English.—Rib Bellies.—Pickled Clear Bellies.—Short Clear Backs.—English (illustrated).—Short Fat Backs (illustrated).—Long Fat Backs (illustrated).—Pickled Clear Backs.—Short-cut Hams (illustrated).—Long-cut Hams (illustrated).—Stafford Hams (illustrated).—South Stafford Hams.—Manchester Hams.—Skinned Hams.—California Hams (illustrated).—Rolled Hams, Bone-

less (illustrated).—Boston Shoulders.—The Advisability of Square Shoulders.—New York Shoulders (illustrated).—Regular Shoulders (illustrated).—Skinned Shoulders.—Rolled Shoulders, Boneless (illustrated).—Mess Pork (illustrated).—Prime Mess Pork (illustrated).—Extra Prime Pork.—Clear Pork (illustrated).—Extra Clear Pork.—Clear Back Pork.—Shoulder Butts.—Lean.—Pork Loin.—Cumberland.—Short Ribs.

Fresh Meats.

Tenderloins.—Trimming.—Spareribs.—The Advisability of Spreading.—What Receptacles to Use to Give Meat a Good Appearance.—What Pieces Must not Be Given for Counter Trade.—The Handling of Spare-ribs, also Fresh and Smoked.—Meat Market Sales.

Hog Tests and Relative Values.

The Value of Tests.—What Percentage to Figure on Live Weight.—What to Figure for Cost of Manufacture.—Shrinkage When Determining Cured Yields.—Conclusion About Cutting of Hogs.

TABLE SHOWING AVERAGE Weights of Cuts, Meats and LARD YIELDED by Live Hogs of 110 to 450 lb. (This table alone is worth the price of the book to every packer.)

Packing and Shipping Meats.

Sizes of Boxes.—How to Pack.—Eight Sizes.—Weights They Will Contain.—Material Used.—Care to be Taken on the Journey.—How to Store on Board Ship.—Damage Due to Exposure.—Advantages of Having Men at Seaboard.—Cost of Packing Meats.—Average Amount of Salt Used.—How Much Borax to Use.—When to Pack in Borax, and Why.—Allowances for Shrink.—Cover Cost of Borax.—Weighing Dry-Salt Meats for Export.—How to Handle Borax Meats and Dry-Salt Meats.—What Methods are Used to Keep Dry-Salt Meats Dry.—Advantage of Tight Boxes.—Points for Exporters How to Ascertain Cost and Profit.—Many Other Points of Value.

Points for Shippers of Provisions to England.

Regulations Adopted by the London Provision Trade.—American and Canadian Bacon Landed.—Pork and Hams in Barrels and Cases.—Mess Pork in Barrels of 200 pounds.—Beef in Tierces of 300 pounds.—Allowances and Terms.—Lard.—Bladders.—American Tierces.—Other Packages.—Canned (tinned) Meats.—Rules and Regulations of London Chamber of Commerce.—General Rules for Exporters.—Terms.—Invoices.—Weights.—Agents.

Domestic Packing and Shipping.

How to Pack and Ship: Domestic Meats.—Sweet Pickled Meats.—Green Meats.—Pumping Hams pro and contra.—Lard.—Fresh Meats, Sausages.—Fertilizer.—Tables of No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100. Averages at 300 lb. No. 3.—Table of Convertible Values for Provision Exports to Great Britain.

Curing.

Elimination of Animal Heat.—Demand for Mild Cured Meats.—Temperatures.—How to Handle a Ham Pump.—Strength of Pickle.—Spread the Meats.—How Long.—What Temperature.—SOME GOOD RECIPES FOR CURING.—How Much Saltwater, etc., to Use.—Sugar Curing.—Different Formulas and Temperatures.—To Avoid "Ropey Pickle."—How to Get Rid of It.—Rolling.—Repling.—Time for Curing of Different Pieces of Different Weights.—When to Draw the Pickle.—Gain in Curing.—Handling of Tierces After Drawing Pickle.—How to Pick Tierces.—Look Out for Leaks.—CURE FOR TONGUES PACKED IN BARRELS AT 220 POUNDS.—Formula.—Another Formula.—Temperature.—Another Pickle.—A Fourth Formula.—Change of Pickle; When Necessary.—Tongues for Export.—Curing of Hocks and Feet.—The Required Pickle.—Another Method.—Temperature.—Vinegar Pickle.—CURE FOR BELLIES IN

TIERCES.—Formula.—Bellies in Tubs.—Another Formula (also good for California Hams, New York Shoulders, etc.).—First-class Cure for Light Bellies for Breakfast Bacon, No. 1.—How to Handle Meats Under this Formula.—Time Necessary for Curing.—Pickle Tests.—Pickle Tanks.—How Low Pickle May Be Drawn from Tanks.—Look Out for Rats.—Tierces.—What Weight of Different Cuts to Pack into Them.—Barrels.—Half-Barrels.—Kegs.—Gain of Weight in Pickle.—Loss of Strength in Pickle.—Do not Use Weak Pickle.—Avoid Pickle-Soaked Meats.—How to Keep Brine "Alive."—Roll All Pickled Meats Well.—Maintaining of Temperature.—"Dry" Method of Curing Tierce Meats.—WESTPHALIA HAMS.—Formula and manner of making them fully explained.

American Dry Salt Meats.

Heavy Side Meats.—How to Handle.—How to Salt and Resalt.—Bulk-ing of Meats and Rebulk-ing.—Backs.—Bellies.—Shoulders.—Bulk all Meats Close.—Time Necessary for Curing.—How to Figure and Determine Difference of Treatment Prior to Smoking Between Dry Salted Meats and Sweet Pickled Meats.—Light, Clear Sides, Extra Clear Sides; How to Put Up.—Advantages in Bulk-ing as Clear.—A Tour Through the Cellars of the Country.—What it Discloses.—A Saving to Packers.—Great Possibilities.—Meats for Export.—Handling.—Color.—Use of Saltpeter and Nitrate of Soda.—Difference Between the Use of Saltpeter and Salt.—Acquirement of Color.—How to Sprinkle Saltpeter on Meats.—How to Add Salt.—Use of the Pocket Stick.—Bulk-ing and Rebulk-ing.—How to Place Export Meats in Cellar.—How to Ship Export Salt Meats in Winter.—How in Summer.—How to Handle Meats When Packed in Borax.—How to Obtain Color on Long-Cut Hams.—The Necessity of Tight Boxes and Close Packing.—Shipping of Backs and Bellies.

Smoke Department.

Various Theories in Reference to Best Method of Smoking Refuted.—Cold Smoking.—Quick Smoking.—What is Necessary in Order to Make Meats Which Will Stand Handling.—How to Fill the Smoke-House.—What Provisions to Take.—What Kind of Fire.—How Long.—Let Your House Cool Off.—What Wood to Use.—About the Use of Sawdust.—What to Use to Give the Meat Better Appearance, and to Prevent Flies from Touching It.—Washed Meats.—Temperature of Water.—What to Mix With It.—What the Stringer Has to Do.—Jars in the British Islands.—Meat-Washing Machines.—Appetizing Meats in Bacon Shops in England.—To Make them Look So.—Room for Improvement in the Handling of Smoked Meats.—Improved Methods Compared to Former Years.—Smoking in Summer, not Handled Meats Any More than Necessary.—Do not Pile Smoked Meats.—Why.—Several Good Points.—About Handling Before Canvassing.—The Use of Borax Before Papering.—Advantages of Parchment Paper Over Straw Paper.—Canvas and Yellow Wash.—How to Yellow Wash 2,500 Hams.—What to Use.—Protection of Smoke-House and Canvassing Room, Ventilators, Doors and Windows.—PICKLE CURED MEATS.—How Long to Soak in Winter.—In Summer.—Fully Detailed.

DRY-SALT CURED MEATS.—How Long to Soak in Winter.—In Summer.—Fully Detailed.—Shorter Time with Running Water.—Putting Meats in Soak Vats.—How Full the Vats Ought to Be.—Advantages of Creating a Current.—Most Economical Arrangement for Soaking Meats.—Detailed and Explained.

Sausage Department.

Advantages of Such Department in a Packing House.—Cleanliness.—A Number of Sausage Recipes.—Fully Explained.—Pork Sausage.—Bologna.—Liver Sausage.—Head-cheese.—Tongue Sausage.—Summer

Sausage.—Beef Sausage.—German Bologna Sausage.—Ham, Chicken and Tongue Sausage.—Oxford Sausage.—Frankfort Sausage.—Roast-wurst.

Tank Department.

Importance of this Department.—Description of Tanks and Capacity.—Size of Manholes.—Location of Same and Water Pipes and Lard Cocks.—How to Set Up a Tank.—To Avoid Loss of Life and Property.—Operation of Tanks.—How to Fill, and When.—What to Do When Tank Gets "Flushed" in Cooking.—How Long to Cook.—How Much Time to Settle.—The Use of Salt in Tank.—Drawing to Cooler.—Pumping Through Filter Press of Separator.—Necessity for Quicker Cooling.—Difference in Temperatures Between Lard Drawn to Tierces and Lard Drawn to Tins.—How to Facilitate the Draining of Tank Water.—Cleaning of Coolers.—Vats and Catch Basins.—Making of "Stick."—Pressing Refuse from Tank Water.—Saving Lard from Tank Water.—What to Do With Residue.—Fight and Open Jacket Kettles.—How to Operate Each of Them.—How Long to Cook, and Under Which Pressure.—The Use of the Hasher and Agitator.—Neutral Lard.—How and Where it is Made.

PRIME STEAM LARD.—What it Should Be Made of, and How Rendered.—"Killing" and "Cutting" Lard.—How to Mix.—Wash Your Gut Lard.—Which Agent to Use in Bleaching and Purifying Rejected Lard.—In Which Proportion.—How to Recook Same.—Another Method.—Another Recipe.—Kettle-Rendered Leaf Lard.—Neutral Lard.—Kettle-Rendered Lard.—How to Make It.—Stearine Tests.—Yield of Lard Pressed for Oil.—Refined or Compound Lard.—What it is Composed Of.—Method of Manufacture.—White Grease.—Brown and Yellow Grease.—Pig's Feet.—Their Utilization as White Grease, if Not Used for Glue Stock.—Where the Grease Can Be Used.—THE MELTING POINT OF LARD.—An Interesting Article on the Subject.—The Melting Point no Indication of Purity.—Methods of Determining It.—Difference of Melting Points of the Different Parts of the Animal.—Difference in Fine Steam Lard and Jacket Kettle Lard.—Disadvantages of Trying to Get Too Much of a Yield.—To Avoid Dark Colored Lard.

Gut and Casings Department.

Its Importance.—What is Paid by Dealers to Packers.—Variation of Prices.—Handling of No. 1 Guts.—Percentage of Good Guts.—Advantage of Handling Guts in the Packing House.—Handling of Bung Guts.—Salting, Drying, Packing.—Points of Interest.

CASINGS.—Soaking, Cleaning, Salting.—Quantity of Salt Allowed.—Yield per Hog.—Calculating Profits for Casings Department.—4 Months' Killing, 2 Examples.—Advantages to the Packer.

Fertilizer Department.

Dried Blood.—Concentrated Tankage or "Stick."—Percentage of Phosphate, Moisture and Ammonia.—Sample Analysis of Dried Blood, Concentrated Tankage.—No. 1 Ground Tankage.—Raw Bone Meal.—Ground Steam Bone.—Value of Dried Blood as a Fertilizer per Unit and per Ton.—Concentrated Tankage No. 2.—Ground Tankage.—How Manufactured, and What it Contains.—Raw Bone Meal.—Ground Steam Bone.

IN ADDITION to the above there are 7,000 NAMES of the following branches of the trade, wholesale trade, only:

Pork and Beef Packers.—Wholesale Butchers and Slaughterers.—Wholesale Dealers in Meats.—Wholesale Provision Dealers.—Lard Renderers and Refiners.—Oleomargarine and Butterine Manufacturers.—Tallow Renderers and Dealers.—Provision Brokers and Commission Merchants.—Cotton-Seed Oil Manufacturers and Refiners.—Sausage Manufacturers (Wholesale and Retail).—Fertilizer Manufacturers and Dealers.—Soap and Candle Makers.

Any intelligent reader will see that this book is an absolute necessity to every progressive packing-house, and that each chapter in the book (which is written by experts), is fully worth the price of same, viz: \$10. It should not be missed in any packing-house, slaughter-house, rendering plant, sausage factory, soap or fertilizer works, cotton oil mill, or any other establishment connected with or allied to the great meat and provision industries of the United States and Canada.—Send us your order.

THE NATIONAL PROVISIONER PUBLISHING CO.—Directory Department.

ROBERT GANZ & CO. Proprietors.

111 Rialto Building, Chicago.

284-286 Pearl Street, New York.

table, covering the ten fiscal years 1887-1896:

Years ended June 30—	Butter.		Cheese.	
	Quantities. Pounds.	Values.	Quantities. Pounds.	Values.
1887	158,031	\$33,759	102,516	\$13,388
1888	86,036	25,073	89,610	13,220
1889	140,832	30,650	88,025	11,592
1890	168,175	33,731	100,609	11,988
1891	149,519	34,705	102,762	13,185
Annual av.				
1887-91	140,639	\$39,596	96,704	\$12,675
1892	178,794	40,785	86,751	11,822
1893	114,355	23,253	77,158	9,944
1894	72,578	15,992	80,787	10,290
1895	122,855	23,068	87,615	10,113
1896	128,847	23,243	93,795	10,761
Annual av.				
1892-96	123,486	\$25,268	85,221	\$10,586

* Engineers for Swift and Company and Nelson Morris & Co. began work at St. Joseph, Mo., yesterday, preparatory to the erection of two packing plants which these firms will build at the St. Joe stock yards. With this news comes the announcement that the Morris company has purchased a half interest in the stock yards from Swift and Company.

ROTTERDAM OLEO REPORT.

The following sales were cabled for the week ending July 30, 1897:

- July 22. Harrison (100/150 tes.) sold at 41 florins.
- " 23. Morris Extra (100/150 tes.) sold at 41 florins.
- " 24. Harrison sold at 41 florins.
- " 24. Monarch sold at 39 florins.
- " 27. Cudaby Extra sold at 41 1/2 florins.
- " 27. Reardon, H., sold at 30 florins.
- " 28. Nelson Extra sold at 40 florins.
- " 29. United sold at 40 florins.
- " 29. Harrison sold at 40 florins.
- " 29. Swift Extra sold at 40 florins.
- " 29. St. Lawrence sold at 31 florins.
- " 29. Reardon sold at 30 florins.

Sales for the week 1,500 tes. spot and 1,900 to arrive. July 24, stock in first hands, 750 tes.

Stock afloat July 24.—Per stmr. Veendam from New York July 17, due July 29, 2,108 tes.; per stmr. Venzago from Balto. July 17, due July 30, 1,895 tes.; per stmr. Spaarndam from New York July 24, due Aug. 4, 2,305 tes.; stmr. Delano from Balto. July 24, due Aug. 6, 1,25 tes. Total, 7,613 tes.

July 24.—My London cable reports: Butter, market quiet and steady; Margarine, market quiet and steady.

Imports into Great Britain for week ending July 17, 1897: 1896—Butter, 83,099 cwt.; margarine, 14,332 cwt. 1897—butter, 68,000 cwt.; margarine, 17,000 cwt.

Exports of Oleo Oil to Rotterdam.

July 24. Per stmr. Spaarndam—United, 160; Eastman, 178; Wolf, 60; Doid, 130; S. & S., 407; Hammond, 385; Morris, 240; Isaacs, 29; Armour, 300; Swift, 63.

July 29. Per stmr. Delano—Swift, 325; Martin, 180; Armour & Co., 500; Cudaby Packing Co., 90; Weaver, Kengla & Co., 60.

Neutral Lard.

July 24. Per stmr. Spaarndam—Armour & Co., 355; Friedman, 500; Swift, 380; Armour & Co., 135.

July 30. Per stmr. Delano—Armour & Co., 200

LICENSE TO SELL MEAT REFUSED.

Chicago, July 29.—Only one of the big department stores has applied for a license for the sale of meats under the Dudleston ordinance. This application was refused by City Collector Martin, who holds that a department store is not entitled to a license for the corporation counsel. Corporation Counsel said of meats, and referred the matter to the Thornton said he expects a legal fight over the validity of both the Dudleston and the Walker ordinances.

KLONDYKE BOOMS BUSINESS.

Seattle, Wash., July 27.—The packing house trade here is very brisk on account of so many persons fitting out for the Klondyke.

To neglect advertising is like resolving never to travel by steam or communicate by telegraph. It is to close one's eyes to the light, and persist in living in perpetual darkness.—Horace Greeley.

LIVERPOOL QUOTATIONS

Liverpool, July 30, 3.45 P. M.—Exchange closing—Beef—Extra India mess, firm, 55s.; prime mess, firm, 45s. Pork—Prime mess fine Western, steady, 45s.; prime mess medium Western, steady, 42s. 6d. Hams—Short cut, 14 to 16 lb, dull, 38s. Bacon—Cumberland cut, 28 to 30 lb, steady, 26s. 6d.; short rib, 20 to 24 lb, firm, 27s.; long clear middles, light, 35 to 38 lb, firm, 27s.; long clear middles, heavy, 40 to 45 lb, firm, 26s.; short clear middles, heavy, 45 to 50 lb, firm, 26s.; clear bellies, 12 to 14 lb, firm, 29s. Shoulders—Square, 12 to 14 lb, firm, 27s. Lard—Spot steady, 21s. 6d. Cheese—American finest white and colored, steady, 21s. 6d. Tallow—Prime city, steady, 17s. 3d. Cottonseed oil—Liverpool refined, steady, 16s.

PORK PACKING.

Special reports show the number of hogs packed since March 1 at undermentioned places, compared with last year, as follows:

March 1 to July 21.	1897.	1896.
Chicago	2,440,000	2,145,000
Kansas City	1,198,000	935,000
Omaha	636,000	484,000
St. Louis	422,000	440,000
Indianapolis	354,000	332,000
Cincinnati	229,000	220,000
Milwaukee, Wis.	126,000	130,000
Cudahy, Wis.	191,700	154,000
Cleveland, Ohio	210,000	160,000
Ottumwa, Iowa	225,000	155,600
Cedar Rapids, Iowa	109,100	124,800
Sioux City, Iowa	104,000	87,000
St. Joseph, Mo.	138,500	80,500
Louisville, Ky.	120,000	88,000
Keokuk, Iowa	42,600	38,000
Bloomington, Ill.	28,300	10,700
Nebraska City, Neb.	91,700	73,000
Lincoln, Neb.	35,000	23,800

—Price Current.

A NEW LIQUID SOAP.

Mr. Thomas H. Bateman, of 223 Finchley road, London, has invented a liquid soap which he claims to possess improved cleansing properties, and besides being powerfully aromatic to be free from the unpleasant drying effect upon the skin which he asserts is inseparable from other liquid soaps.

A soft soap is prepared as free as possible from alkali, and about one hundred and twenty parts of this soap are digested in about thirty parts of a solution composed of spirits of rosemary and lavender oil, combined in the proportions of about twenty parts of spirits of rosemary and about one part of lavender oil.

The compound prepared in this manner is then clarified by filtration, and to the product is added a small percentage of pure glycerine, say, for example, about one part of glycerine to ten parts of the compound, and after being thoroughly mixed the preparation is complete and ready for the market.—Soapmaker and Perfumer, London.

SAUSAGE RECIPES.

SALAMI DI VERONA.

Use as follows for each 100 pounds:

Thirty-six to lean beef free from sinews; 36 pounds, lean pork free from sinews; 28 pounds back lard sliced into pieces about one-half inch thick.

For spicing use: 63.5 ounces salt, 5 1/4 ounces white pepper, 5 ounces fine powdered cane sugar, 2 1-5 ounces powdered potash, saltpeter, 4 ounces old French cognac.

The spicing is carefully blended together before adding to the mass.

First chop the beef, then all the meat and lard as directed, to about half a walnut size; now add the salt and spice mixture, and continue chopping and turning the mass until about the size of a pea. The knife should be frequently wiped off in order to remove particles of meat adhering which would cause in-

equality. Before chopping, the block should be well rubbed with 5 or 6 pieces of good garlic until the block is well permeated with the same.

Use beef middle guts or butts, to be tied after stuffing with two-threaded twine from thick to thin ends. Next treat like cervelat sausage, but do not smoke, drying the sausage instead, for from four to five weeks.

BUSINESS CHANGES.

George A. Raabe, a San Francisco, Cal., butcher, has given a mortgage for \$4,000.

Joseph Ballemore, groceries and meats, Hartford, Conn., has discontinued business.

Frank B. Wilcox, meat, West Winsted, Conn., has sold out.

Wm. Marshall & Co., groceries and market, Chicago, have dissolved partnership. James McManus continues the business.

William Diller, market, Decatur, Ill., is succeeded by Miles & Sanders.

Follett & Skow, butchers, Maquoketa, Ia., have dissolved partnership.

Henry L. Wright, groceries and provisions, Bangor, Me., has sold real estate for \$300.

Pillsbury & Pillsbury, soap manufacturers, Winslow, Me., have given a chattel mortgage for \$100.

The store of Charles H. Brunier, butcher and provisioner, Baltimore, Md., was damaged by fire to the extent of \$300.

John Bien, Jr., wholesale and retail meats and provisions, Baltimore, Md., has applied for the benefit of the State insolvent laws.

The firm of Frank Locke & Co., sheepskins, Boston, has been dissolved.

Charles H. Howe, provisions, Boston, has had discharged a mortgage given by him June 3 for \$300.

John F. McElaney, provisions, Boston, has given a chattel mortgage for \$300 and filed a voluntary petition in insolvency.

A chattel mortgage for \$1,200 has been given by Edward T. Marliave, groceries and provisions, Boston.

Owen & Co., retail provisions, Boston, Mass., have filed a voluntary petition in insolvency.

S. Wesson Tower, groceries and provisions, Cambridgeport, Mass., has given a chattel mortgage for \$800.

W. E. Armstrong & Co., provisions, Newton Centre, Mass., has given a chattel mortgage for \$450. A previous mortgage for \$400 has been discharged. Wm. E. and Geo. C. Armstrong, of W. E. Armstrong & Co., Newton Centre, Mass., have filed a voluntary petition in insolvency.

Carter & Tuell, provisions, Watertown, Mass., have given a chattel mortgage for \$300.

C. E. Webber, meat market, Minneapolis, Minn., has made an assignment.

W. H. Lentz, of J. Lentz's Sons, butchers, Springfield, Ohio, has given a real estate mortgage for \$4,000.

W. O. Brown & Sons, meat, Toledo, Ohio, have assigned.

Ed. E. Schluter, groceries and meats, Toledo, Ohio, has given chattel mortgages for \$3,800 and made an assignment.

A judgment for \$104 has been obtained against Chas. A. Seitz, meats, and Henry Seitz, both of Etna, Pa.

I. M. Lincoln, beef, Providence, R. I., has given deeds for real estate.

The large coupons, perfect perforations, absolute accuracy, impossibility of tampering, the index, name on each coupon, is making the **Forbes Indexed Number Two Coupon Book** one of the most popular on sale. You are using them of course. If not, send to J. P. Forbes, Coshocton, Ohio, for a free sample.***

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BUTCHER.—Sober, competent shop tender, only short time in city, would like steady employment. Address F. K., Box 16, "The National Provisioner," 248-6 Pearl street, New York City.

BUTCHER, single, 18 years' experience, wishes position; best references. H. K., Box 12, "The National Provisioner," 248-6 Pearl street, New York.

BUTCHER, for market or restaurant; right man in right place. Address B., Box 42, "The National Provisioner," 248-6 Pearl street, New York City.

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(Etab^d 1872) 19, rue Béranger (FRANCE)

HELP WANTED.

BUTCHER wanted for first-class restaurant; must thoroughly understand the cutting of raw meats for restaurant use. Call prepared to work. R., Box 22, "The National Provisioner," 284-6 Pearl street, New York City.

BUTCHER wanted; young butcher who knows how to cut meat. M., Box 28, "The National Provisioner," 284-6 Pearl street, New York City.

BUTCHER.—Young butcher wanted to drive. X., Box 30, "The National Provisioner," 284-6 Pearl street, New York City.

BUTCHER.—Young man as butcher. W. H., Box 49, "The National Provisioner," 284-6 Pearl street, New York City.

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NEW YORK CITY.

Fink, Abe, 135 East 110th; to H. Brand.	50
Booker, G. H., City Island; to M. O. Booker (Ice Wagons, etc.)	1,000
Lester, Halda, Division St.; to J. Berliner (Ice Wagons, etc.)	700
Noll, H. A., 342 2d Ave.; to J. E. Noll.	480
Parkes, Vaclav, 1361 1st Ave.; to F. Lesser.	100
Pond, Fred, 881 10th Ave.; to J. McLean.	158
Thoret, J. W., 2255 3d Ave.; to F. Kuhn	185
Same, 2521 1st Ave.; to J. Goll.	410
Veigel, Robt., 342 East 47th; to Marx Veigel.	500
Weissberger, Ignatz, 159 Attorney; to H. Brand.	115

KINGS COUNTY.

Feuerstein & Supornitzky, 56 Seigel; to M. Katz.	60
Fulanbaum, L., 367 Hudson Ave.; to E. Diamond	21
Levy, C., 38 Tompkins Ave.; to E. Diamond.	65
Newmark, Annie, 204 Eastern Parkway; to J. Levy.	300

Bills of Sale.

Meyer, W., Coney Island Ave. and Ave. C; to Rosa E. Meyer.	Nom.
Schmidt, W., 98 5th Ave.; to W. H. Smith.	125
Same, same; to W. H. Kentanna.	217
Smith, W. H., 98 5th Ave.; to W. Schmidt.	125

HUDSON COUNTY.

Stelzl, Nicholas, Hoboken; to H. Oetjen.	280
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Bills of Sale.

Maloney, Thomas; to P. H. Maloney (Butcher and Grocery).	2,000
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NEW YORK CITY.

Balbi, Amello, 259 Elizabeth; to G. Sciediero.	360
Binkovitz, Rubin, 311 East 54th; to S. Levin.	20
Cardinale, Michele, 139½ Mulberry; to A. Cagliostro.	1,025
Cinque, Antonio, 1670 3d Ave.; to G. Imperato.	200
Gewert, Conrad, 101st St. and Madison Ave.; to C. H. Hinck.	250
Gerken, C. A., Long Island City; to H. Mencken.	1,300
Miller, Jacob, 141 Monroe; to R. Kusiner	300
Roes Bros., 1878 Lexington Ave.; to D. Mayer B. Co.	2,000
Spanner, Abram, 468 East Houston; to S. Levin.	55

Bills of Sale.

Levy, Saml., 96 Ludlow, to R. Platkin.	665
Martono, Portono, 510 Courtlandt Ave.; to S. Pulzella.	175
Metzner, Rachel, 55 Walker; to Damszek & Kallman (Restaurant).	500
Michaelis, James, 233 Bowery; to P. Caravitis (Hotel).	100
Pulzella, Sabatino, 510 Courtlandt Ave; to T. Martono.	150
Rifkind, Jacob, 92 Sheriff; to M. Rosenfeld.	111
Ruppel, Geo., 149 1st Ave.; to L. Noll.	1,000
Segal, S. & S., 35 Gouverneur; to M. Mittelman (Butter).	250

KINGS COUNTY.

Froyland, D. B., 572 Clinton; to F. Johnsen.	250
Lipschitz, J., 622 5th Ave.; to Gerzog & Co. (Delicatessen).	200
Schmid, L., 3056 Fulton; to J. Schmidt.	110
Windis, J., 203 Wythe Ave.; to R. T. Scott.	75

Bills of Sale.

Abrahamson, B., 622 5th Ave.; to J. Lipschitz (Delicatessen).	800
Bruning, Sophia, 127 Patchen Ave.; to Louisa S. Bruning.	Nom.
Tiedermann, E. C., 198 Albany Ave.; to A. H. Meier (Subject to mortgage of \$150).	Nom.

HUDSON COUNTY.

Wellwitz, Herrmann, Hoboken; to Meyer & Lange.	54
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Bills of Sale.

Maloney, Thomas; (see butchers.)	
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ESSEX COUNTY.

Claus, Albert, et al.; to Schmitt Bros.	100
Horowitz, S. H.; to J. Horowitz.	250

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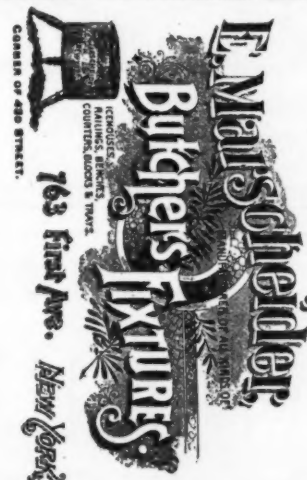
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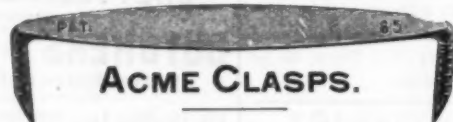
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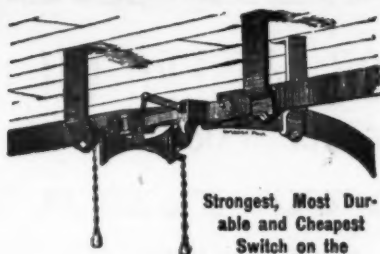
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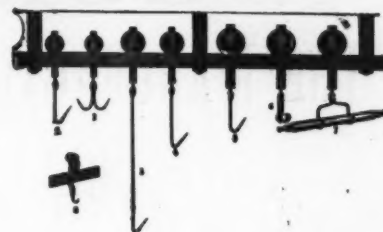


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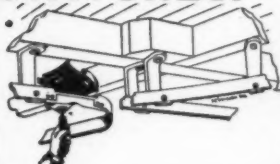
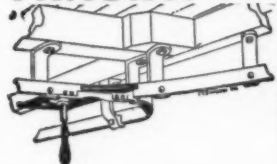


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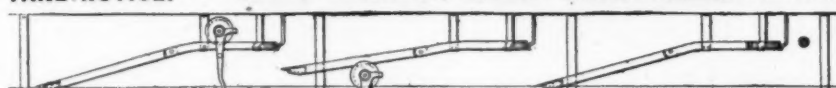


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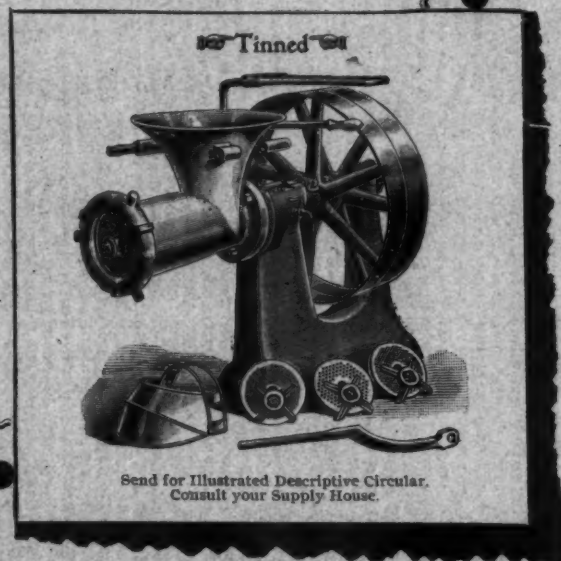
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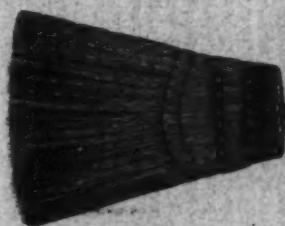
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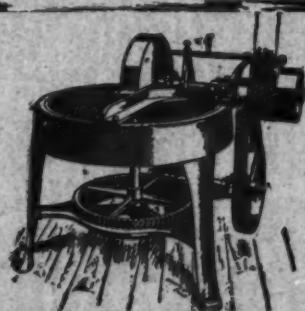
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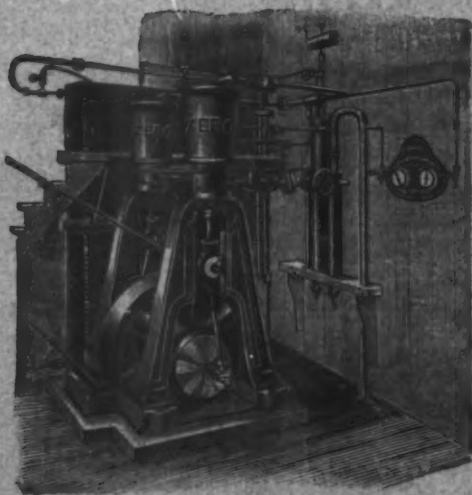
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